

# The Mining Journal

## AND ATMOSPHERIC RAILWAY GAZETTE,

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 555.—Vol. XVI.]

LONDON: SATURDAY, APRIL 11, 1846.

[PRICE 6D.]

**MINE MATERIALS.—TO BE SOLD, BY AUCTION,** at WOOLSON'S COLLIERY, near SAUNDERSFOOT, Pembrokeshire, on the 22d day of April next, ONE PUMPING-ENGINE, 30-inch cylinder, 6-foot stroke, with two boilers, 21 feet long and 54 diameter; about 40 fms. of pumps, 12-inch bore, including two working pieces of same size, lined with copper and brass.  
ONE PUMPING-ENGINE, 18-inch cylinder, 4-foot stroke, with one boiler; about 30 fms. of 8-inch pumps, with brass working-piece and hole. This engine is fitted with a fly-wheel, about 5 tons weight, and spur gearing, and can be adapted for pumping or winding.  
ONE WINDING-ENGINE, 18-inch cylinder, 34-foot stroke, with fly-wheel and drum, complete.  
An UNDERGROUND PUMPING MACHINE, with 3-inch pipes complete; and a large assortment of coal waggons, tram plates, bar-iron, pit timber, elm balks, chains, both round and flat, wire ropes, windlass beams, horse gin, spur-wheels, 3-inch pipes, together with a large assortment of colliery stores.  
The colliery is very conveniently situated for shipping, being within a few yards of the Saundersfoot Railway, and about a mile from the harbour of Saundersfoot, where vessels can load at any time. Saundersfoot is about four miles from Tenby, to which place steamboats from Bristol run twice a-week.  
The whole may be viewed at any time.  
Apply to Thos. Stokes and Co., Hean Castle Colliery, near Saundersfoot, Pembrokeshire.

**VALUABLE MINING MATERIALS FOR SALE.—TO BE SOLD, BY PUBLIC AUCTION,** by Mr. GEORGE SEALY, on Monday, the 4th of May next, at Eleven o'clock in the forenoon, at WHEAL PROVIDENCE MINE, in the parish of Gwnear, the MATERIALS on the CARLOOSE MINE, consisting of—  
An excellent 60-inch cylinder PUMPING-ENGINE, 8-foot stroke in shaft, and 94-foot in cylinder, with two boilers, 24 tons steam pipes, &c., complete.  
A very good CRUSHING MACHINE, complete, nearly new.  
25-ft. WATER-WHEEL, 2ft. on breast, with 6-head stamps, complete, & nearly new.  
The CAKE of a STEAM-WHIM, with perpendicular iron axle, complete.  
A very good capstan, shears, and balance-bob.  
33 fathoms 12-inch pumps  
16 " 11-inch ditto  
14 " 10-inch ditto  
17 " 9-inch ditto  
2 14-inch H-pieces  
2 14-inch top door ditto  
2 14-inch poles, stuffing-boxes and glands, and cases to suit  
1 9-inch ditto ditto  
3 14-inch windbores  
1 13-inch ditto windbores  
1 11-inch ditto  
3 9-inch ditto  
2 8-inch ditto  
1 6-inch ditto  
3 9-inch working barrel  
1 11-inch ditto  
2 9-inch clack seat pieces  
1 11-inch ditto  
75 fathoms of 12-inch rods, nearly new.  
Tagged strapping-plates, swords, and caps; flanch-rod, and other bolts and bars, staples and glands; cisterns, 2, 3, and 4-feet whim shies; 320 fms. 9-16 and 4-inch whim chain; 12-inch capstan-rope, 90 fms. long; an axle and sockets of water-wheel; old cast and wrought-iron; sockets of an angle-bob, &c.

**SECOND-HAND MINING MATERIALS FOR SALE.—**  
J. E. MARE, IRON FOUNDER, PLYMOUTH.  
1 16-inch plunger-pole, with case, stuffing-box, and gland  
1 14-inch ditto ditto ditto  
1 11-inch ditto ditto ditto  
1 10-inch working barrel  
1 11-inch door-piece and clack  
1 14-inch windbore—9 feet  
1 17-inch plain pumps—9 feet  
1 17-inch H-piece and clacks  
1 14-inch working barrel  
1 Pair of wrought-iron loops, with cast gudgeon—about 10 cwt.  
1 10-inch door-piece and clacks.  
A set of iron work for a water-wheel, 24 ft. diameter, consisting of rings, cranks, sockets, chairs, brasses, and bolts and nuts.

**TO IRONMAKERS.—TO BE LET, THE IRONWORKS and PREMISES** situated at PEMBREY, near Llanelly, Carmarthenshire. There are two furnaces, casting-house, and blowing-engine, now erected. These works are within a mile of Barry Port—half a mile from Pembrey Harbour, and the South Wales Railway will pass within a quarter of a mile of these works. Large quantities of iron ore pass these works to Swansea 11 miles inland.—The iron having to be shipped at Pembrey. To persons understanding the making of iron, this presents an eligible opportunity of entering into the trade at a small outlay.—Apply to Mr. J. Stanley, Pembrey, Swansea, Carmarthenshire.—Pembrey, April 7, 1846.

**IMPROVEMENT IN TREATING TIN ORES.—**  
Messrs. POLKINGHORNE & CO. beg to acquaint ADVENTURERS, and OTHERS interested, in TIN MINES, that they have just obtained HER MAJESTY'S LETTERS PATENT for the SOLE USE of a COMPOUND SOLUTION, effectually to CLEANSE TIN ORE from all extraneous metals—thereby increasing its value from £2 to £4 per ton.

Messrs. P. and Co. will be ready shortly to supply the article from their manufactory.  
**COPPERHOUSE, HAYLE, CORNWALL.**  
In cases of 10 gallons each, which quantity is sufficient for a ton of ore.—Price 10s. per cask, and license 5s. per ton of ore.—N.B. Every information can be obtained by applying at the patentee's offices, 12, Clement's-lane, London.—April 4, 1846.

**FIFTY POUNDS** will be given for INFORMATION enabling the ADVERTISER to OBTAIN a MORTGAGE ON FREEHOLD SECURITY, for any sum from £20,000 to £50,000, at 3 per cent. per annum—ready to be advanced immediately.—Apply, by letter, post-paid, to Mr. E. H. Pedler, solicitor, Liskeard, Cornwall.—Liskeard, April 9, 1846.

**PARTNERSHIP.—WANTED, a PARTNER,** either active or otherwise, with a capital of £2000 to £10,000, to join a thorough and good practical man in the MANUFACTURE OF LOCOMOTIVE ENGINES and OTHER RAILWAY WORK. Plant and tools ready. The most satisfactory references will be given.—Letters addressed to "B. L." at Messrs. Waterlow's, law stationers, Birchin-lane, London, will be promptly attended to.

**WANTED TO PURCHASE, an IRON WHARF CRANE,** equal to five tons.—Address (post-paid), stating price and particulars, to Mr. Avery, Commercial Gas Works, Stepney.

**WHEAL TREVENNA, ST. NEOT.—WANTED,** for the above mine, a good WATER-WHEEL, from 3 to 40 feet in diameter, and 3 to 4 feet in width. Persons having a wheel of the above dimensions to dispose of, should make application (stating the terms on which they would sell the same) to Mr. Thos. Milton, of Liskeard, the purser.—Dated April 7, 1846.

**WANTED, for the WEST OF SCOTLAND MALLEABLE COMPANY'S WORKS, MOTHERWELL, near Glasgow, a MILL MANAGER;** also, a FORGE MANAGER.—Applicants may send their references and testimonials, addressed to the directors, at their office, 46, Renfield-street, Glasgow.—March 30.

**STEAM-ENGINES.—From 8 to 20-horse power ENGINES** ALWAYS IN STOCK.  
Apply to Mr. CAPPER, ENGINE-MAKER and FOUNDER, BIRMINGHAM.  
Price.....£14 per horse-power.

**STEAM COAL.—WITHOUT SMOKE,** as per experiments made at her Majesty's Dockyard, Woolwich.  
CAMERON'S COALBROOK STEAM COAL, and SWANSEA AND LOUGHOR RAILWAY COMPANY.—(Completely Registered and Incorporated).  
OFFICES.—2, MOORGATE-STREET, LONDON.

The directors are now prepared to supply steam ship companies, manufacturers, shippers, and others, with the company's steam coal, either at the company's wharf at Swansea, or in London. A statement, showing by comparative trial the superiority of this coal for steam purposes over every other, and a scale of prices, may be had on application at the company's offices here, or at their wharf at Swansea.—March 18, 1846.

**PATENT FUEL COMPANY (WARLICH'S PATENT).—**  
REDUCTION IN PRICE.  
Private families and manufacturers will find this FUEL to be 25 per cent. more durable than the best coal—to be much cleaner than the best coal, and to emit less smoke than coal, and it makes a bright, pleasant, and cheerful fire.—Orders may be sent to the secretary, or to the company's works, Stowage, Deptford; or to the depot, at Messrs. Coles, Child, and Co.'s wharf, Belvedere-road, Lambeth. Price at Deptford Works, 20s. per ton, of 40 blocks; ditto Lambeth depot, 22s. Cartage from either place according to distance. This fuel may also be had of Messrs. W. and J. Horne, Falcon Wharf, Bank-side; and at the depot at Bruce's landing wharf, Paradise-row, Chelsea.  
WILLIAM NICHOLSON DE MATOS, Secretary.  
Patent Fuel Company, 16, St. Mary Axe.

**UNIVERSAL GAS LIGHT COMPANY.—CONTRACTS** TAKEN for LIGHTING UP, with a SUPERIOR GAS, and at a REDUCED RATE—towns, villages, lighthouses, dockyards, hospitals, theatres, public offices, manufactories, printing-offices, prisons, barracks, railway stations, asylums, schools, and other large buildings, where the ordinary gas is not accessible.—Letters to be addressed to William Nicholson, secretary, 159, Drury-lane.

**GRATIS.—A LIST of PATENTS and REGISTRATIONS** for the MONTH of FEBRUARY, may be had (gratis) on application at the PATENT OFFICE, 59, CHANCERY-LANE, or will be sent free, by post, on receipt of two shillings, together with a Prospectus, containing charges and necessary information for PATENTS and REGISTRATIONS.—Further particulars may be had by applying to Messrs. Barlow and Le Caplain, the Patent Office, 59, Chancery-lane.

**LAMERHOOE WHEAL MARIA COPPER MINE:**  
ROSCAROCK SILVER-LEAD MINE:  
WHEAL MARY SILVER AND COPPER MINE:  
WHEAL WALTER COPPER AND LEAD MINE:  
WHEAL CONCORD LEAD AND COPPER MINE:  
WHEAL BRAY COPPER MINE:  
WHEAL WEEKES COPPER MINE:  
WHEAL KELLY LEAD AND COPPER MINE:  
WHEAL BRADSTONE LEAD AND COPPER MINE:  
WHEAL DUNTERTON COPPER MINE:  
COSHEEN COPPER MINE, county of Cork, Ireland.  
The BUSINESS of the ABOVE MINES is now CONDUCTED at No. 4, KING-STREET, CHEAPSIDE, where specimens may be seen, and all particulars obtained.  
Dated March 21, 1846. JAMES CROFTS, Secretary.

**LAMERHOOE WHEAL MARIA.—**Notice is hereby given, that a SPECIAL GENERAL MEETING of the adventurers in this mine will be HELD at the offices of the secretary, 4, King-street, Cheapside, London, on Thursday, the 16th day of April next, at Two o'clock in the afternoon precisely, for the purpose of receiving a report from the finance committee, and to make a call for the payment of the engine, and other necessary expenses for the prosecution of the mine, when the attendance of all the adventurers is particularly requested.  
G. W. SNELL, Purser.  
Dated Callington, March 27, 1846.

**NISTER DALE IRON COMPANY.—PREFERENCE** SHARES.—This company has now commenced its operations, and it is proposed to declare a dividend on the 31st December next. A limited number of shares, of £25 each, remain to be disposed of; and the directors are empowered to guarantee the holders of such shares a DIVIDEND, at the rate of £5 per cent. per annum, upon the amount of capital paid up on such shares, for the term of three years next after they are subscribed for.—Applications to be addressed to the directors, at the office of the company, 10, Old Jewry Chambers, London, where the form of application, and all information respecting the company, may be obtained.

**NISTER DALE IRON COMPANY.—**Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the proprietors of shares in this company will be HELD at the office of the company, 10, Old Jewry Chambers, in the city of London, on Friday, the 17th day of April inst., at One o'clock precisely, for the purpose of confirming the resolutions passed at the extraordinary general meeting, held on the 31st day of March last.—Dated April 1, 1846. GEO. HUME, Clerk.

**PATENT GALVANISED IRON COMPANY.—**At a Meeting of the proprietors of this company, held at the offices, 3, Mansion-house-place, London, on Tuesday, the 31st March, 1846, the following resolutions were adopted:—  
1. Resolved, That the report of the directors, and the accounts now submitted, be received and entered on the minutes.  
2. Resolved, That this meeting, deeply impressed with the great importance of complete railway communication between the company's works in Wales, the manufacturing districts, and the ports of the Bristol Channel, confirms and approves of the subscription by the directors, on behalf of the company, for 1000 shares in the Llynvi Valley and South Wales Junction Railway, appoints the directors trustees to hold the said shares on behalf of the company; and authorises them to do all necessary acts in pursuance of the engagements into which they have entered in respect of the same.  
3. Resolved, That a dividend, at and after the rate of 8 per cent. per annum, free of income tax, be declared for the half-year, ending 31st Dec., 1845, on all shares entitled to the same, and that the same be made payable on and after the 30th April next.  
4. Resolved, That John Field, jun., Esq., be re-elected a director of this company.  
5. Resolved, That Wm. Mallins, Esq., be re-elected a director of this company.  
6. Resolved, That the Rev. Thos. G. Hall be re-elected an auditor of this company.  
7. Resolved, That D. R. McNab, Esq., be re-elected an auditor of this company.  
8. Resolved, That the thanks of the meeting be given to the chairman, directors, and managers, for the ability with which they have conducted the affairs of this company to the present time.  
9. Resolved, That the thanks of this meeting be given to the Rev. Thos. G. Hall and D. R. McNab, Esq., for their services as auditors of this company.  
The Deed of Settlement is completed, and would have been laid before the meeting for execution, but has been detained by the Registrar of Joint-Stock Companies; it will, however, it is confidently expected, be ready for execution previous to the payment of the dividend on the 30th proximo.  
S. VINCENT, Secretary.  
3, Mansion-house-place, London, March 31, 1846.

**CALLINGTON MINING COMPANY.—RESOLUTIONS** passed at the Special General Meeting of the shareholders in the Callington Mines Company, held at the office of the company, 44, Finsbury-sq., on Monday, March 30, 1846.

1. Proposed by Mr. F. Cass, and seconded by Mr. Herron, That the report of the committee, read at this meeting, be adopted.—Carried.  
2. Proposed by Mr. F. Cass, and seconded by the Rev. Dr. Slath, That the accounts submitted at the annual general meeting, held on the 6th of March inst., be adopted.—Carried.  
3. Proposed by Mr. John Field, and seconded by Mr. F. Cass, That a committee of five shareholders be appointed to revise the Rules and Regulations of the Company, and to report thereon to a special general meeting, to be convened for the purpose of making such alterations in, and additions to, the present rules, as the shareholders shall at such meeting determine upon.—That it be a special instruction to the committee to consider and report upon such of the recommendations embodied in the report of the committee of shareholders, presented this day, as they shall deem advisable.—Carried unanimously.  
4. Proposed by Mr. F. Cass, and seconded by Mr. Hammond, That the following gentlemen do form the committee—three to be a quorum:—Messrs. Field, Tyrie, Andrew, Fearon, and James.  
That a special general meeting be convened for Tuesday, the 21st of April next, at One o'clock, to consider the report of the committee appointed to revise the present Rules and Regulations of the Company, and to determine on, and adopt, such alterations and additions to the same as the meeting shall think fit.—That the said meeting shall also be made special, for the election of directors; the number of directors so to be elected to be in accordance with the number to be determined on by the said special meeting.—Carried unanimously.

**CONSOLIDATED TRETOIL MINING COMPANY.—**The directors hereby give Notice, that, at a special general meeting of the shareholders of this company, held at the offices, 8, George-yard, Lombard-street, on the 4th inst., a CALL of TEN SHILLINGS per share was made, PAYABLE on or before Saturday, the 25th inst. The shareholders will, accordingly, oblige by paying the amount of the said instalment on their shares to the secretary on or before that day, and by forwarding their certificates to the offices, that the payment may be marked thereon.  
It was also unanimously resolved, That all shares on which the third call remains in arrear of payment at this time, be absolutely forfeited.  
HENRY THOMAS, Secy. Mining Offices, 8, George-yard, Lombard-street, London, April 7, 1846.

**VENTONGIMPS MINING COMPANY.—**The undersigned having arranged with the directors of the late Cornubian Company for taking over the machinery and plant, as also the Ventongimps sets, for the purpose of working these sets by a new company, to be called the VENTONGIMPS MINING COMPANY, formed and managed by a committee of shareholders on the cost-book system, and composed of 1000 shares, hereby give Notice to the HOLDERS of CORNUBIAN SCRIP SHARES, that any of them holding more than three shares, and desirous of joining this new company, may obtain ONE Ventongimps share for every such three shares, by application (in the form at foot of this advertisement), sent to the office of Mr. James Hay, 4, Austin Friars, London, on or before the 28th April next, after which day the allotment of new shares will be made, irrespective of the preference above named.  
London, March 27, 1846. (Signed) JAMES HAY, ABRAHAM LINDO MOCATTA, GEORGE MACKAY.

**FORM OF APPLICATION.**  
Gentlemen,—With reference to your advertisement of the 27th of March last, and being a holder of Cornubian scrip shares (the dates and numbers of which I hereby submit), I beg to apply for the allotment of shares in the Ventongimps Company, and I engage, on receiving the same, to subscribe to such rules and regulations as the committee of management may approve of.  
I am, Gentlemen, your obedient servant,  
To Messrs. James Hay, A. L. Mocatta, G. Mackay.

**NOTICE TO THE PROPRIETORS AND SHAREHOLDERS OF MINES, SMELTING-WORKS, &c.**  
Messrs. MITCHELL and FIELD beg to inform the PUBLIC, that they have REMOVED from No. 5 A to No. 23, HAWLEY-ROAD, KENTISH TOWN, where they have erected a spacious LABORATORY, fitted expressly for the performance of all OPERATIONS CONNECTED WITH MINING.—Practical instruction to gentlemen in Assaying, Mineral Analysis, and Manufacturing Chemistry in general.  
Assays and Analyses conducted as usual.  
All communications to be addressed to Messrs. Mitchell and Field, assayers, No. 23, Hawley-road, Kentish Town.

**THE PATENT SAFETY FUSE,** FOR BLASTING ROCKS IN MINES, QUARRIES, AND FOR SUBMARINE OPERATIONS.—This article affords the SAFEST, CHEAPEST, and most EXPEDIENT MODE of effecting this very hazardous operation. From many testimonies to its usefulness with which the manufacturers have been favoured from every part of the kingdom, they select the following letter, recently received from John Taylor, Esq., F.R.S., &c.:—"I am very glad to hear that my recommendations have been of any service to you; they have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this." Manufactured and sold by the Patentees, RICKFORD, SMITH, and DAVEY, Camborne, Cornwall.

**MR. H. B. RYE (from Cornwall), MINE AND RAILWAY** SHARE AGENT, 80, OLD BROAD STREET, LONDON.  
Mines inspected, and every information may be obtained on application.

**THOS. P. THOMAS, of the late firm of RYE and THOMAS,** MINE AGENT, and DEALER in RAILWAY AND OTHER SHARES, 80, OLD BROAD-STREET, LONDON.

**JAMES LANE, SHARE AGENT,** HALL OF COMMERCE, LONDON.

**WILLIAM TRENEY, DEALER IN RAILWAY AND MINING SHARES.—ESTABLISHED TEN YEARS.** OFFICES, No. 90, THREADNEEDLE-STREET, LONDON.

**MINING PROPERTY.—CAPITALISTS** who are disposed to INVEST in CORNISH and FOREIGN MINES, will find the present opportunity very favourable for so doing. From large sums having been lately diverted from such investments for railway speculations, standard mines are now selling at prices that will pay the purchaser 30 per cent. per annum for his outlay. There are also other mines that are on the eve of paying dividends, which can be recommended with confidence. Applications to be made to Mr. JAMES HERON, mining agent, No. 3, Adam's-court, Broad-street, London.

**MINING OFFICES, REMOVED FROM 16, CORNHILL,** to 1, THREE KING COURT, LOMBARD-STREET.—Mr. R. TREDINNICK (of Cornwall), having established PRACTICAL AGENTS and CORRESPONDENTS in every MINING DISTRICT, whereby he obtains early and accurate information respecting MINES, proffers his services to capitalists and adventurers in the PURCHASE and DISPOSAL of SHARES. Mr. Tredinnick has business to do in the following MINES:  
Mary Ann Trelawney Herodsfoot West Seton West Tolguis North Pool North Roskear East Crofty Andrew and Nangiles  
And is a BUYER of 1-999th Shares, at £300.

**PAUL RABBY, Jun., and CO.,** beg to acquaint their London and Cornish friends, that they have OPENED an OFFICE at No. 12, COPTHALL-COURT, LONDON. Having been provided with the support of a very numerous and highly respectable connection, both in London and Cornwall, they have much pleasure in offering their SERVICES as MINE and RAILWAY BROKERS—assuring all those who may favour them with their commissions that they will devote the attention, energy, and strict integrity shall form the basis upon which all transactions will be conducted.

**WILLIAM FOX and SON, No. 53, CASTLE-STREET,** LIVERPOOL, have always on SALE FIG-IRON, RAILWAY BARS, CHAIRS, and IRON of every description.—FIN PLATES, WIRE, &c.

**MESSRS. LAMOND, SMALE, and LAMOND'S PUBLIC** SALE OF RAILWAY SHARES, &c., are HELD, at the Hall of Commerce, Threadneedle-street, every TUESDAY and FRIDAY, at One o'clock precisely.—Orders received until Four o'clock of the day prior to sale.—London, April 10, 1846.

**LOTHBROKE MINE.—TO BE LET,** for a term of years, long or short, this well-conditioned and very rich lode of BLACK JEMATTIE IRON ORE—averaging about 70 per cent. in its natural state, and which has been proved to make the best bar-iron and steel, equal to the purest foreign metal. The works are within an easy distance of the Bristol Channel, opposite to many large manufacturing towns in South Wales. The mine is in fair work at present, and can be entered upon without any large advance of capital (and will produce any quantity, however large), and is affected by levels, with scarcely any machinery. A MILL and FORGE is also TO BE LET, adjoining.—Further particulars, and the ore to be seen, by application to Mr. Woolcott, Sandhill-park, Taunton, Somerset.—April 2, 1846.

**CARADON WHEAL HOOPER.—**At a Meeting of the adventurers in the above mine, held at the White Hart Inn, Llancaunton, on Wednesday, the 18th day of March, 1846, the following resolutions were passed unanimously:—  
1. That, for the further prosecution of the said mine, a call of £1 per 250th share be made, to be paid into the Devon and Cornwall Bank, at Llancaunton, on or before the 18th day of April ensuing.  
2. That the purser be hereby authorised to write to the defaulters in calls, offering to give them an acquittance for all their unpaid calls, provided they will surrender their shares to the purser and auditor conjointly, for the benefit of the company generally, and that they signify their acceptance of this offer, or pay the amounts due upon their respective shares by the 10th of April next; and, in the event of any person not paying the said over due calls on or before that day, or surrendering their shares in the manner proposed, the purser shall forthwith proceed legally for the recovery thereof.  
Llancaunton, March 25, 1846.

**CALEDONIAN RAILWAY.—THIRD INSTALMENT.**—Notice is hereby given, that the directors of the Caledonian Railway Company have made a THIRD CALL of FIVE POUNDS per share, PAYABLE on or before the 8th day of May next, 1846, at the offices of any of the under-mentioned banks:—  
London—Messrs. Masterman, Peters, Mildred, Masterman, and Co., 35, Nicholas-lane, Lombard-street.  
Liverpool—Messrs. Moss and Co.  
Manchester—Sir Benjamin Heywood, Bart., and Co.  
Edinburgh—The Commercial Bank of Scotland.  
Glasgow—The Edinburgh and Glasgow Bank.

Interest, at the rate of 5 per cent. per annum, will be charged on all calls in arrear; and interest, at the rate of 4 per cent. per annum, will be allowed on payments made in advance of calls, from the date of such payments being made, until the line is completed.  
N.B.—No transfer of shares delivered at this office after the 13th inst. can be registered, until the call upon such shares shall have been paid, as the special notices of the call may be issued on the 14th inst. By order of the board of directors, 17, Princes-street, Edinburgh, April 8, 1846. D. RANKINE, Secretary.

**NORTH WALES MINERAL RAILWAY.—THIRD CALL**—TWO POUNDS per share on the £10 shares of the company—making (with the deposit of £1) £3 per share.—The directors of the North Wales Mineral Railway Company having passed a resolution, making a CALL on the proprietors of TWO POUNDS per share on the £10 shares held by them respectively, the proprietors of such shares are hereby required to PAY the same, on or before Thursday, the 30th inst., to one of the under-mentioned bankers.—Interest, at the rate of £5 per cent. per annum, will be charged on all calls remaining unpaid at the date above-mentioned. Interest, at the rate of £5 per cent. per annum, will be allowed on all calls paid in advance, pursuant to the Act of Parliament. By order, ROBERT ROY, Secretary.  
Chester, April 6, 1846.  
Messrs. Dixons and Wardell, Chester  
The Borough Bank, Liverpool  
Messrs. Jones Loyd and Co., London  
Messrs. William Jones Loyd and Co., Manchester  
The National Bank of Scotland, Edinburgh  
The Caledonian Bank, Inverness.

**SHREWSBURY, OSWESTRY, and CHESTER JUNCTION** RAILWAY.—Notice is hereby given, that the HALF-YEARLY ORDINARY MEETING of this company will be HELD at the company's offices, Foregate-street, in the city of Chester, on Thursday, the 30th day of April inst., at One o'clock in the afternoon.—Dated this 9th day of April, 1846. WM. ORMSBY GORE, Chairman. ROBERT ROY, Secretary.

P.S.—The books for registration of transfers will be closed from the 20th inst. to 1st May.

**SLIGO and SHANNON RAILWAY COMPANY.—**This Bill having passed the Standing Orders and the Committee on Motions in the House of Lords, and also the Standing Orders of the House of Commons, without opposition, it is necessary, in order to conform with the Standing Orders of the House of Lords, to make a further deposit with the Accountant-General in Ireland of 5 per cent., previous to the third reading of the Bill.—The shareholders are, therefore, required to PAY into the under-mentioned bankers the sum of ONE POUND FIVE SHILLINGS on each of their shares, on or before the 15th of April next. The bankers' receipts for the same will, on presentation at the company's offices, be exchanged for new scrip.  
The London Joint-Stock Bank; the Provincial Bank of Ireland; the Leeds Banking Company.  
By order of the board, WILLIAM R. ORMSBY GORE, Chairman. A. GOLE, Secretary.  
Winchester-house, Old Broad-street, London, March 25.

**BY HER MAJESTY'S ROYAL LETTERS PATENT.**  
**SMART'S ELLIPTICAL CONVEX METALLIC PADDLE** FLOATS, FOR PROPELLING STEAM-SHIPS.—The very great superiority of this invention over the common float, in all points, having been fully proved by its use on various steamers of from 90 to upwards of 200-horse power—and applications being made for licensing several iron steamers, from 70 to 300-horse power, the patentee confidently recommends it to the Government and the public generally.

The superiority consists, in beauty of appearance, stability, durability, its property of greatly reducing vibration and undulation, inexpensiveness, powerful agency in checking a ship in chance of collision—and what is of the greatest consequence, giving an immense increase of speed. All these must have a powerful influence, not only on steam propellers, but more especially on the minds of the steam-travelling public.  
These floats can be easily applied to any wheel.  
Applications for license (for which a fee of 10s. per horse-power is charged) to be made to the patentee, Mr. Robert Smart, 5, Grenville-place, Hotwells, Bristol, or his agents.



**THE ISTHMIAN OF PANAMA.**—We have, on various occasions, noticed the exertions making on the part of French speculators to establish a canal and railway across the Isthmus of Panama, so as to open a navigable communication between the South Pacific and the Atlantic. By a royal ordinance of his Majesty Louis Philippe, issued on the report of the Minister of Foreign Affairs, we perceive, that M. Garella, Chief Engineer of Mines, and the projector of this navigable canal of the Isthmus of Panama, has been named Officer of the Legion of Honour. Should this grand undertaking ever be accomplished, it will be highly beneficial to the commercial intercourse between the Old and the New Worlds; but there are so many obstacles which present themselves to its being successfully carried out, that we have strong doubts that the enterprising spirit of the engineer will be able to overcome them. We wish him, however, success at this moment, when her Majesty's Government has entered into contracts with the South Pacific Steam Navigation Company, for establishing a regular line of communication between Panama, Callao, and all the intermediate parts on the western coast of South America to Valparaiso—the Liverpool of the Republic of Chili—once a month, in conjunction with the Royal West India Mail Steam Packet Company, from Southampton to Chagres, in the Atlantic; a railway, or navigable canal, would be a great desideratum, as the Isthmus of Panama is the shortest transit from ocean to ocean, of the three proposed lines projected—although not offering perhaps so many facilities of cutting as that of the Isthmus of Tehuantepec.

**SUSPENSION BRIDGE IN FRANCE.**—The trial of the suspension bridge which has been constructed over the Durance at Mallefont (already alluded to in a former Number of this Journal) has been most successfully accomplished. This bridge is 900 feet in length, 18 feet (or 6 metres and 20 centimetres) in width, and, when tried, perfectly resisted the weight which was placed upon it; and although it was blowing a hurricane from the north-west (mistral), it withstood all the shaking, and every part of it remained perfect. This bridge affords a direct communication between the departments of the Ardèche and the Vaucluse, with the great commercial city of Marseilles, and vice versa, which will be of great importance to the mining and other industrious portions of the population, as it is expected to be opened for public traffic about the end of this month. Although the urgent necessity for the bridge of Mallefont had been felt for many years, a strong hesitation existed in proposing its execution, in consequence of the difficulties which the erecting of such a construction presented over a very deep valley, having at least 6000 feet in breadth; but these difficulties have fortunately been overcome by M. Maurel, an experienced civil engineer of Toulouse, who has been the means of gifting the department by this public and most remarkable, useful monument of engineering science. In the Ardèche and the Vaucluse, there are some extensive coal and iron mines, which have, however, been little worked in consequence of the enormous expense of carriage both by land and water; but this bridge will open facilities to commerce and mining industry, that have been wanting for years by the population, and will be the means of opening a new field to the resources of those departments.

**TRING, CAMBRIDGE, AND NEWMARKET RAILWAY.**—The settlement of the affairs of this projected company forms an agreeable exception to many instances which have recently been recorded—the whole of the expenses being met by those originally concerned in its projection, and all the officials—solicitor, secretary, &c.—waiving their claim to recompense.

**THE MINES OF THE GRANDE COMBE AND THE RAILWAY OF GARD.**—We have always been averse to monopoly of every description, but more particularly in mining operations; and we are sorry to see, that there is a combination or amalgamation entering into by the large proprietors of coal and iron mines, railways, and canals, in France, to keep the whole in their own hands, which has given rise to numerous petitions from the different Chambers of Commerce in all the large cities. The proprietors of the mines of the Grande Combe and the Railway of Gard have obtained a concession to work the coal mines, which formerly belonged to the *Société des Mines de la Grande Combe*. The capital of the company is to consist of 16,000 shares of 40*l.* each, and the guaranteed dividend, or interest, is to be at the rate of 5 per cent.

At Astrabad, in Persia, a number of Russian miners were daily expected to work, for the Russian Government, the rich mines of copper, tin, and coal, abounding in that part of the country. The Persian Government has farmed out these mines to the Russians.—*Private letter, Odessa, March 8.*

The following is the comparative postage in the different countries:—England, 1*d.*; Prussia, 2*d.*; Spain, 2*d.*; the United States of America, 2*d.*; Sardinia, 3*d.*; Austria, 3*d.*; Russia, 4*d.*; and France 4*d.*

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**REVIEW OF THE WORK.**  
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**CURTIS ON MANHOOD (Strange).**—A personal of this work will easily distinguish its talented authors from the host of medical writers who pretend to cure all diseases are daily so indiscreetly thrust before the public. Its originality is apparent, and its personal treatment consolation and hope to the mind of the patient.—*Naval and Military Gazette.*

**CURTIS ON MANHOOD** should be in the hands of youth and old age. It is a medical publication, ably written, and develops the treatment of a class of painful maladies which has too long been the prey of the illiterate and designing.—*United Service Gazette.*

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## THE RATIONALE OF RAILWAY ADMINISTRATION.

We have received a cleverly-written pamphlet, by Thornton Hunt, Esq., under the title—*The Rationale of Railway Administration, with a View to the greatest possible amount of Accommodation, Cheapness, and Safety.* The writer is evidently well versed in railway matters; and his pithy remarks are deserving, not only the attention of Government, and the Members of both Houses of Parliament, but the directors of the railways already established, and those projected, as many improvements may yet be introduced for the benefit of the public at large. The progress already made in this improved system of transit in the United Kingdom, has given a spirit of enterprise to speculation, and mining, manufacturing, and agricultural industry: it has also extended to France, Belgium, Holland, Germany, Portugal, Spain, Italy, and even Russia, the West Indies, South America, and India, where railways are being constructed—affording, as they eventually will, the greatest impetus to the development of their mineral resources and commercial intercourse. The introduction of railways has been a vast benefit to the progress of trade and industry in every country, where they have as yet been established; but more—they have been the means of creating a social intercourse between nation and nation, and a reciprocity of feeling of man to man, who now sees that it is only by the arms of peace, and availing ourselves of the resources which Nature has bestowed, that a country and its population can prosper. At first there was a dread of steam navigation, and then of railways, by the generality of the public; but we have splendid steamers plying across the Bay of Biscay, down the Mediterranean, the Levant, the West Indies, across the Atlantic, to the shores of the United States, in the South Pacific, and the Indian Ocean—(many built of iron)—to France, Belgium, Holland, and the ports of the Baltic. We last week announced the launching of the first of a line of fine iron steam-ships, intended for the new trade between Liverpool and the Brazils. Railways are also constructed from nearly every part of the United Kingdom, and which even royalty, and the nobility of the country, patronise—not only as the most expeditious, but as the most convenient. That feeling which formerly existed has subsided, and England is proving to all other nations what her maritime, as well as internal, industry, and commercial resources, are—the envy and admiration of every power in Europe, and the whole globe. It has been proved by official returns, that the injuries or accidents attendant on railway travelling are far less numerous than in former times by coaches, though much more is attempted to be made of them by interested alarmists; and the greater part of what do occur, are acknowledged to arise from the negligence of the sufferers themselves. Although we do not altogether coincide with the opinions of the author of the work under notice, there are many points, as we have already observed, which certainly deserve the most serious consideration, and which, if adopted, would prove highly beneficial. He agrees with a simplicity of working, which leads us to expect cheapness, and that at the lowest minimum; but the right of Government to interfere, as argued by the author, is another question—as the directors ought to be aware, from all past experience, that cheap travelling always increases their returns; and if they are men of experience, which they generally are, they will certainly study their own interest, which is also that of the public, without the Board of Trade, or any other body dictating to them. In France and Belgium, nearly every undertaking of any magnitude is monopolised by Government, either sooner or later, whether it be mining or railway; and we should, indeed, be sorry to see such a system adopted in this country, as it would prove highly prejudicial to speculation and enterprise—although we agree that, where railway directors are injudiciously exacting exorbitant charges from the public, the interference of Government (who has the right), by establishing laws on the subject, would be just and called for, as protective of the public and commercial traffic—there now being no other means of travelling to any distance but by the trains. There is one grand duty devolves upon Government; and that is, promoting the safety of the public, and to provide (as far as possible) against accidents which might occur, by appointing experienced inspectors—engineers, either military or civil—whose duty should be to examine and render a monthly report to the Government Board of the state of the railways under their examination, not only as regards locomotives, bridges, rails, viaducts, embankments, &c., but the material employed, and also the competency of the employees, similar to the plan adopted in France and Belgium; and where it can be proved, that accidents occur from negligence of those connected with the company, then let them be punished accordingly. We are aware, that the directors of the different companies are anxious that their line should be as efficient as possible; but there are many obstacles they too frequently have to contend with. The writer of the work we quote states, with respect to safety, "That the result of the great increase in the numbers of passengers, which obliges railways to take all who come, was, that the power, requisite for the propulsion of trains, became much too small for the demand upon it. One company which, partly by foresight and good fortune, had provided 12 new engines, found it necessary, in the summer of 1845, in consequence of the increase of passengers and traffic, to invite the engine-makers to furnish 20 more engines as speedily as possible. The universal reply, in the month of August, was, that not a single engine could be completed before some month in 1847, or eighteen months. They offered 200*l.* to 300*l.* more upon each engine (and each cost 2000*l.*), in order to secure a speedy supply; but it was not to be had of approved makers." They, however, applied to one who is known to be skilful, although not standing so high in general estimation as the monopolists of machine making in this country, and were promised that their order should be executed as soon as possible, and with the best materials—equal, indeed, to the first engines. The directors and contractors of railways in England, as well as the continent, are constantly placed in a dilemma for procuring their locomotives, as many engineers, like artists, have their peculiarities, and believe the longer they are about the work, the better it must be. Mr. Hunt very judiciously observes, "A government has always been the last in the race of improvements, and we are not to expect that railway administration would form the exception to that universal rule. We have already seen our Government meddling, not very happily, with railways; but on the continent the system of official management is in full swing." He then gives some amusing instances of the manner the employees conduct themselves at the various railway termini in France, and the annoyance passengers have to undergo, with respect to their places, luggage, &c.

The author makes some very interesting observations on the benefits that the railway system has already conferred upon this country, by furnishing a more rapid means of transit, cheapness, convenience, and safety, to all classes of the population—and a comparison with travelling of former days, in the early introduction of coaches or diligences into England in the 16th century, up to 1820—and the importance of railways as an auxiliary to national defence. With respect to grievances alleged on behalf of railway companies, he says—"It is true that railway companies, with their immense resources, have been able in some cases to defy the law with impunity—that is to say, they can infringe it, sustain an action, incur the penalty, and yet be less injured by a defeat, than their opponents by a victory. But this is an additional reason for abrogating an enactment which is practically inoperative, except in creating opportunity for vexatious litigation. The law, with respect to the assessment of railways for poor rates, and other local imposts, is in a very unsatisfactory state. There have been legal decisions on the subject, which must be supposed technically to have settled the matter of law, but the question still remains full of doubt and difficulty."

As regards the ratings of railway property, there appears no principle or guide to uniformity of practice—while the "profits of trade" are continually suffering encroachment. It will scarcely appear credible to many of our readers, that the following disparagement exists in the carrying out of this obnoxious impost upon property in a free and great commercial country like England. In the parish of Courtenhall, the London and Birmingham Railway is rated at 800*l.* per mile; in the next parish of Milton, it is rated at 2000*l.* per mile; the rateable value of the rest of the parish is 135*l.*, and the rateable value of the land occupied by the railway was originally 10*s.* 8*d.*; 32*l.* per annum would be the full average value of the land before it was converted into a railway, taking 12 acres to the mile—therefore, the value upon which the land would have been assessed before the making of the railway, would have been 36*l.* instead of 2000*l.* It is difficult to discover any reason for the variation in different districts, since it has by no means corresponded with the real value of the land; for example, the Great Western Railway is sometimes rated as high as 2000*l.*—yet, at the Paddington terminus, where the value of the land is much greater, it is rated no higher than 1200*l.* per mile; near Bristol, at 1600*l.*; and in the neighbourhood of Bath, the rates are still more reasonable. In the very extensive parish of Keymer, the Brighton Railway, occupying a narrow slip of land, pays a higher amount of rates than all the rest of the

parish put together. It is observed, that the rates are raised "where there happens to be a very troublesome lawyer." Among the important grievances of railway companies is the want of a proper and impartial tribunal, the same as the Tribunal de Commerce, in Paris, to decide in disputes between different railway companies, without incurring the enormous expenses of law litigation. It is particularly needed in cases where lines belonging to different proprietors unite, as one set of proprietors is likely to have the advantage—as, for example, where it owns the main line, or a second rival project, may have its representatives. We understand, that Government has, for some time, had the establishing of so necessary a tribunal to railway speculation under their serious consideration.

The author of the pamphlet in question, very justly sets forth the absurdities that have been committed by the Board of Trade, but more particularly the committees of the House of Commons, on railway schemes, by paltry objections, disgraceful to school boys, but more especially to the representatives of the people in the Senate-House, who are not without suspicion by the public, that they have yielded, in many instances, to private interests; as it is well known, that the greatest opponents that railway projects have experienced in being carried out, have been the landocracy. Nor is discredited the only evil that Parliament has incurred. The total absence of any settled principle of legislation, is a main cause of the excessive speculation; for, as there was no determinate plan of action, every projector, stimulated by alluring ideas of golden success which attended many of the mad schemes in their earlier stages, was thereby tempted to try his luck; and thus have men invested their property, or "little all," in delusive projects, got up by share-jobbers and pettifogging lawyers, who knew that they were as feasible of execution as the Laputan's invention of extracting sunbeams from cucumbers; but they filled their pockets at the expense of many an honest and industrious man, now ruined. To the public press in general the greatest praise is due, for having put a stop to this nefarious system of swindling.

The author, in conclusion, proposes the following remedy for railway abuses and litigation:—"It would not be difficult to construct a tribunal; but it should be endowed with the character of impartiality, as high as that of our judges. The object should be to secure to the members of it that permanency of position, which would confer high station and independence of feeling—at the same time, that a strong gage of responsibility would be retained. The court should sit throughout the year. For a long time to come, railway business will form a large portion of the national activity, and it is not a mere intermittent affair. The continual sitting, of course, would greatly lighten the pressure of business, and would enable all matters brought before it to be considered and transacted with great deliberation. The tribunal might serve not merely to arrange preliminaries for the establishment and construction of railways, but also it might be a court of reference and arbitration between railway companies in matters where the ordinary law is either too cumbersome, or is really inapplicable—in cases, for example, such as those to which allusion has been made, where railways belonging to different companies unite or cross each other. With such a machinery to develop and control the railway system, there would be every prospect of its becoming one of the grandest and most beneficial institutions of the country—really a national institution, worked out by the individual energy of the people."

**POLICE REGULATIONS ON THE FRENCH RAILWAYS.**—We have made, in former Numbers, a few observations on the new regulations of the French Government, respecting the police laws for the security of the public on railways, so that those who have the directing of locomotives will act with more caution. On the 21st ultimo, this new law was enforced for the first time, by the tribunal of police of St. Etienne, under the following circumstances:—On the 11th of September last, the engine called *La Jumelle*, No. 31, burst on the railway of St. Etienne; two men were killed by the explosion, and several others were severely wounded. The Procureur du Roi considered it his duty to make a most rigid inquiry into the circumstances, in consequence of which, Deville, the engineer, M. Verpillon, the constructor of the locomotive, and M. Gervoy, the director of the railway, had to appear before the tribunal, presided by M. Bayon, the vice-president. The first one was fined 2*l.*; the second, 80*l.*; and the third, 40*l.* The Minister of Public Works is determined when accidents happen on railways, to have the case well investigated, whether it is from negligence on the part of the engineer, or the bad construction, either of the railway or locomotives, to have the parties punished, or fined, to the utmost extremity of the law. All the different lines now constructed in France are constantly visited by efficient civil engineers, appointed by Government, so as to make their report to the Minister of Public Works, as to the state of the locomotives, rails, embankments, and the whole of the material—so that the public may not be exposed to danger. Such regulations would be highly advisable in a great commercial country like England, whose railway traffic is so extensive.

**RAILWAY POLICE REGULATIONS IN BELGIUM.**—The directors and companies of the railways in Belgium, have been called upon by the Government to form their opinion, and to present their observations, respecting the new police regulations which are going to be enforced for the security of the public from accidents on railways, similar to the law that has most judiciously been passed in France—that engineers, or engine drivers, directors, and companies, are all liable to heavy fines in case of neglectful accidents that may occur on the lines. In France, the law is most rigid on this point, where death is caused by negligence; there is not only a fine upon the company to support the family of the deceased, but an imprisonment to the guilty party, from six months to five years, according to the case.

**RAILWAY TRAVELLING.**—A geographer of Munich has made the calculation, that when all the railways projected are in activity, a person may proceed from that capital to St. Petersburg in 66 hours, to Naples in 47; to Rome in 38, to Hamburg in 35, to Paris in 32, to Berlin in 25; to Geneva in 24, to Milan in 23, to Venice in 22, to Dresden in 21, to Vienna in 18, to Leipzig in 18, to Frankfurt-on-the-Maine in 17, to Strasbourg in 15, to Stuttgart in 9, and to Nuremberg in 9 hours.

**ATMOSPHERIC RAILWAY PROGRESS IN FRANCE.**—We have in former Numbers alluded to the great attention paid in France to the development of the atmospheric system. The works for extending the railway from St. Germain to the Place du Chateau are nearly finished. The buildings and fixed machines from St. Germain to Nanterre, and the next station, are finished; and the two steam-engines, of 200-horse power each, constructed by Mr. Alfred Hallette of Arras, will soon be sent to St. Germain. The tubes that are to ascend the acclivity of 0.035 are now being laid down, so as to receive the valves, and the first trial will be made at the commencement of next month. The second section of this railway will only be tried at first for passengers, on the tube of 0.63. The following are the different systems already tried by French engineers:—1st, Hediard's: The experiments commenced at St. Ouen, on the railway now being constructed, and were very satisfactory—going at the rate of 36 to 45 miles per hour, passing the gradients with the greatest facility.—2d, Hallette's, which has met with general approbation.—3d, Andraud's: This gentleman has had conceded to him the branches from Asnières to Argenteuil, and will soon be put in operation.—4th, The system of M. Pecqueur, which, from the trials he has made, will, there is no doubt, be ultimately highly successful. In France the Government is giving every encouragement to the progress of railway enterprise, but more especially that on the atmospheric system, not only as being considered the safest, but the most economical.

**NEW WIND POWER.**—A machinist, at Cabotville (Mass.), has just erected a shop at that place, the machinery of which is propelled by wind, in a somewhat novel manner. A large wheel, measuring 14 feet in diameter, furnished with wooden sails, or floats, is placed upon a perpendicular shaft, on each side of which, in a room below, is an invention similar to window shutters, which, when opened, causes the wind to rush in, and rising sets the sails and wheel in motion, and produces a velocity equal to that of any water-wheel. We have seen a beautiful model of this wind-wheel at the shop of the truly scientific machinist, Mr. A. French, 63, Centre-street. The invention will be evidently very convenient to manage, whether it gives as much power as some other kinds or not.—*American Paper.*

**IMPROVEMENTS IN THE MANUFACTURE OF PINS.**—A patent has recently been taken out for certain improvements in the manufacture of wire, which, amongst other suggestions, has caused one of value in the making of pins; at the same time, overcoming what has been hitherto a bar to competition with foreign makers—namely, the difficulty of pointing the pin by any other means than the hand. This difficulty is, however, surmounted by the new and patent machinery; and to such an extreme of nicety is this operation carried, that powerful glasses exhibit a degree of finish scarcely to be surpassed. The price of the pins turned out by this process is considerably reduced. Pressure, it is said, is the principal aid employed, and by which means the pin and its head are made in one piece.



## IMPROVEMENTS IN GAS—LOWE'S PATENT.

An application was made, before the judicial committee of the Privy Council, on Monday last, for an extension of the term of Mr. Lowe's patent for his invention "for increasing the illuminating power of coal-gas."

Mr. WEBSTER appeared in support of the application, which was not opposed. The invention consisted in passing coal-gas through Naphtha, and the mode, stated in the specification as being the simplest, was the charging of the gas meter with this spirit in place of water; but, to meet an objection, on the part of the insurance offices, to having a large bulk of Naphtha in one vessel, the patentee introduced other modes for saturating the gas in a separate vessel with the vapour of Naphtha, by causing it to pass either through a series of sponges charged with this volatile substance, or by the extended exhibition of surfaces of Naphtha contained in a series of shallow trays. [Two argand burners were exhibited—the one consuming ordinary coal-gas, and the other the same gas naphthalised, and the light from the latter was greatly superior in quantity and quality.]

Sir JAMES CLARK, physician to the Queen, said he had used the naphthalised gas in his house for some years. It gives a clearer and more powerful light than coal-gas, with less heat. It produces fewer deleterious substances, and is therefore less injurious to health than common gas. It exhibits colours more clearly. The production of less heat is of itself an important advantage. This light was introduced in the drawing-room at Buckingham Palace, on occasion of the fancy ball in 1842.

Mr. BENJAMIN HAWES, a director of the Chartered Gas Company, and chairman of the Thames Tunnel Company, said naphthalised gas was a great improvement upon the common coal gas. Five years ago, I introduced the apparatus into my dwelling-house, and found it gave a stronger and clearer light at less cost. It produces more light, with less heat and unpleasant effluvia. I endeavoured to introduce it into general use, but was met by the argument, that the quantity of gas consumed would fall off about one-fourth. My answer was—"Give the public a good article cheap, and you will find the increased consumption will make up for the diminution in price." Mr. Lowe has had great difficulty in introducing his invention, and (so far as I know) has not received any remuneration from it. He has allowed us to use it in the Thames Tunnel without payment, and has said to everybody, "Only give it a trial, and I will charge you nothing."—By the committee: There is no difficulty whatever in the use of it. There is a saving of 20 per cent. in the cost.

Dr. REID said, his attention had been called to the naphthalised gas in the course of his experiments for lighting and ventilating the Houses of Parliament. I consider it an important invention; it produces from 30 to 50 per cent. more light than common gas, according to the temperature at which the gas is saturated, and gives off less heat. It is also more favourable to the human countenance, and to the distinguishing of colours.

Mr. ANDREWS, chief inspector of lights at the Westminster Gas Works, said the naphthalised light had been used successfully at the Athenaeum, Parthenon, Junior United Service, and other clubs; also, at the Millbank Penitentiary, &c. The result was a superior light, with a saving of about 22½ per cent. It was now in use at the Junior United Service Club, with Faraday's ventilator.—Mr. ALFRED SMEE, F.R.S., had burnt the naphthalised gas in his house for some years. With the same quantity of light, there is less heat, with a saving of 20 per cent. in gas; it is also of more agreeable quality, and exhibits colours better.

The ATTORNEY-GENERAL having stated that he did not feel it to be his duty, on the part of the public, to offer any opposition to the application, Dr. LUSHINGTON said their lordships would advise her Majesty to extend the patent for the term of five years.

## EXPLOSIONS IN STEAM BOILERS—PRICE'S PATENT BOILER.

—From the numerous explosions, now unfortunately of frequent occurrence, by which an immense loss of life ensues, and which are not confined to one description of boiler, but appears to be a consequence to which all are liable, the description of a boiler on the tubular principle, patented by Mr. Price, must be interesting to all who are under the necessity of using steam power. Although tubular in principle, they differ entirely from any yet invented, and are applicable as well to stationary as to marine and locomotive engines. The principle is as follows:—From the fire box, constructed within the front of the boiler, two ranges of pipes proceed to the back, where they are closed by a plate, with bolts and nuts; near the end, they are turned up by an elbow into another series of two pipes, which proceed to the front, and which are also covered in a like manner; these are again carried up by an elbow joint to other two tubes, which proceed to the chimney at the back of the boiler. Boilers on this principle, from 80 to 100 lbs. pressure per inch, could not be burst, even should the engine man, from neglect, allow the water totally to evaporate, and thoughtlessly to pump in a fresh supply, provided the safety valves are properly weighted and in order. In addition to the usual safety valve at the command of the engine man, another is secured from his reach, and is a ball loaded with shot, working in a cap, and, on higher pressure than required, is raised, and the steam passes into the chimney. No part of the boiler can become hotter than the water it contains. The fact of boilers getting red-hot, and water being suddenly converted into steam, is, doubtless, one great cause of explosions. The advantages the patentee claims for his boiler are as follows:—For stationary boilers: One-third of the usual quantity of small coals will suffice; two-fifths of the room will be sufficient; the boiler will stand no need of repair for a much longer period; saving of fire bars—of labour in stoking. An iron funnel will answer as well as the highest stack; steam is generated in less than half the time usually taken; no masonry or brick-work required, except a few stones to stand upon; no danger of explosion from collapse, or otherwise; the boiler is cleansed without entering it, the flues act as stays, and they may be cleansed without stopping the working of the boiler. The boiler may also be placed in a very short time: having had one of my stationary boilers removed, and a larger one put in its place, and at work, in 38 hours.—For marine boilers: The same saving as above. Less heat is felt in the vessel, the whole being expended within the boiler, and no liability to fire, in consequence the fireman and engineer working in a comparatively cool atmosphere.—For locomotives: A considerable saving in coke; the attainment of much better draught; the application of the whole of the heat to generating steam, and not as now, allowing it to expend itself in the chimney; less dust and annoyance from the escape of burning coke from the top of the chimney; and at one-half the present cost, and less wear and tear. Old boilers, in most cases, can be altered to the above principle.

MACHINE IN SHIPBUILDING.—M. J. Watchman, of Baltimore, Maryland, has invented a machine for bending iron plates for shipbuilding. It is formed by a combination of screws, the head of which has a socket point, so that it may be turned to suit any curve. The lower bed of screws is first arranged to suit the pattern wanted, and then the upper ones run down or up to match. The upper plate with screws is raised, and the sheet heated and laid in, and pressed between the two until cold, when it is ready for use.

RAILWAY FROM ST. DIZIER TO GRAY.—It appears that the projet de loi on the railway from St. Dizier to Gray, has given rise to some warm debates in the committee of the Chamber of Deputies. However, the commissaires, or jury, who were named, are favourable to the project: their names are MM. Mortimer, Ternaux, de la Tournelle, Duval de Fraville, Martin (du Rhone) de Bussieres, Pelteureau Villeneuve, de Magnoncourt and Dufourral. It must be remembered, that St. Dizier is one of the most important iron districts in France; and the great drawback that it has for years experienced, is the want of a cheap conveyance for their industry, either for receiving their coal, or transporting the metal to Paris and other parts. The establishing of this railway will be highly beneficial to the prosperity of this great mining industrious population of France.

ROYAL POLYTECHNIC INSTITUTION.—The directors of this establishment have given an addition to the ordinary features lately exhibited here. This attraction is a number of portraits of the most distinguished chiefs of the Sikhs, who were opposed to our troops in the late battles on the Sutlej. These portraits were taken by a lady, who resided for many years in that part of India, and are certainly highly creditable, and prove great artistic talent and skill; these portraits have lately arrived in England, and give great proofs of the good tact and judgment of the managers of the institution. By these means, the public will have an opportunity of forming some opinion of the character of the enemy, by inspecting their countenances, forms, and attire. These pictures do not indicate, either by the peculiar construction of the face or eye, those feelings of ferocity, said to be a leading characteristic amongst them; on the contrary, the majority of them have handsome, and almost womanish features, indicating peaceful and honest intentions—so much so, had we not just had ample evidence to the contrary, proving how much we may be deceived by appearances. Although the greater number are portraits of the Sikh chiefs, yet there are some of our own gallant countrymen—the late lamented Sir Robert Sale, Lady Sale, Sir Henry Hardinge, Sir Hugh Gough, and several other distinguished individuals. The instrument by which these interesting pictures were exhibited, is the opaque microscope, invented by Mr. Longbottom.

## Proceedings of Public Companies.

## MEETINGS DURING THE ENSUING WEEK.

TUESDAY.....Wheat Puncture Mining Company—Farquharson's Hotel, Truro.  
Trenton Mining Company—office, at Two.  
Great North and South Wales Railway—London Tavern, at One.  
WEDNESDAY.....South Wheel Maria Mining Company—New Inn, Callington, at Three.  
Independent Gas Light and Coke Company—London Tavern, at One.  
Asylum Life Assurance Company—office, at One.  
THURSDAY.....Lamerhoe Mining Company—office, at Two.  
FRIDAY.....Nister Dale Iron Company—office, at One.  
Cornwall and Devon Central Railway—London Tavern, at Twelve.  
Australian Agricultural Company—office, at Two.

[The meetings of Mining Companies are inserted among the Mining Intelligence.]

## ROYAL MAIL STEAM-PACKET COMPANY.

The annual general meeting of the proprietors of this company was held on Thursday last, April 9, at the London Tavern, for the purpose of receiving the directors' report of the affairs of the company, for the year ending the 31st of December last; and of electing one director in the place John Irving, Esq., deceased, one director in the place of Michael McChery, Esq., and one auditor in the place of Charles William Short, Esq., both going out in rotation—the two latter gentlemen being eligible to offer themselves for re-election. The meeting was numerously attended by those interested in the company.

ANDREW COLVILLE, Esq., in the chair.

The CHAIRMAN having stated the purport of the meeting, the SECRETARY (Capt. E. Chappell) read the following report and statement of accounts, for the year ending 31st December, 1845:—

On again meeting the shareholders, it is with much regret the directors have to advert to the decrease of their late respected chairman, whose firm and honourable character placed him deservedly high in public estimation. It is but justice to add, that having been originally engaged in the formation of this company, he adhered to it steadily throughout all its difficulties, and the last energies of his life were exerted in the promotion of its interests. In reporting the company's operations for the year 1845, it will be seen that the expectations the directors ventured to offer at a period of great depression, have not only been realised, but considerably surpassed. A statement of the company's accounts for the year 1845, has been transmitted to each shareholder, and by comparing the "working account," with that for the year 1844, it will be observed that each head of receipt for "freight" and "passage money," outward, homeward, and intercolonial, exhibits an augmentation—the increase upon freight being 3358l. 13s. 4d., and upon passage money 16,449l. 14s. 6d.; making a total upon these two items of 21,807l. 7s. 10d.

The charges for "insurance," and "repairs of the ships and machinery," are now for the first time introduced into the "working account," having heretofore been charged in the "profit and loss account," which will explain why the surplus upon the "working account" should appear less, while it is in reality considerably greater than for the year 1844. The only charge upon insurance in 1845, has been 1828l. 13s., arising out of the transactions of 1844—leaving at the credit of that account, upon the 31st December last, the sum of 23,171l. 7s., and the directors have now to report that they have purchased 25,000l., 31 per cent. stock, costing 24,281l. 5s., as an investment on this account.

The contract for shipwrights' repairs has hitherto been worked in a satisfactory manner, and the ships and machinery have been maintained in the highest state of efficiency. The *Dee* has just taken in new boilers at Blackwall, and two other sets of new boilers have been contracted for, and will soon be completed, to be put on board the next ships which may require them. The directors have had great pleasure in being enabled to replace the capital previously written off, amounting to 79,790l. 16s. 8d.; but the shareholders must be aware that, in the estimate of assets, the value of the ships is retained at the amount of their original cost, without any deduction being made for four years wear, and it will therefore be necessary, hereafter, to create a reserve fund sufficient to cover such deterioration.

To maintain the efficiency of the service, the directors have purchased the *Eagle* steam-vessel, of 260-horse aggregate power; which ship, having undergone a thorough refit, is now nearly ready to proceed to the West Indies; and a contract has been entered into for building a new steam vessel, of 800 tons, and 260-horse aggregate power, to replace the *City of Glasgow*,—which ship is not of sufficient power to be further employed in execution of the company's contract.

The Lords Commissioners of the Admiralty have entered into contract with the Pacific Steam Navigation Company, by which passengers, mails, &c., will be conveyed monthly to and fro, between Panama, Callao, Valparaiso, and the intermediate ports, in connection with the Royal Mail Company's steam-ships, running monthly between Jamaica and Chagres. It has, consequently, been considered a matter of great importance towards improving the company's receipts, that the conveyance of treasure across the Isthmus of Panama should be encouraged; and the directors, therefore, as an additional accommodation and security to the public, have undertaken the transport overland, which will be conducted by agents appointed at Panama and at Chagres. The company's colonial superintendent has also been sent to the spot, for the purpose of completing all the necessary arrangements, and for facilitating the passenger and treasure traffic of the Pacific with Europe and North America by this short and expeditious route. Looking at the probability of some additional receipts from this source, and from a possible increase in passengers and freight upon other routes, there seems no reason to doubt but the current year will prove equally profitable—if not more so—than that which ended on the 31st of Dec. last. The directors continue to receive the testimony of general approbation relative to the good conduct of the company's officers, and the punctual performance of the service in every respect. In conclusion, the directors having taken a review of the affairs of the company, have the satisfaction to announce a dividend of 11. 10s. per share, being at the rate of 5 per cent. per annum on the paid-up capital for the half-year ending 31st Dec. last, and that the same will be payable on and after the 13th inst.

A detailed statement of accounts was submitted, from which it appeared, that the receipts for the first half of the year had been 184,681l. 17s. 5d.; the second half, 201,737l. 3s. 11d.—together, 386,419l. 1s. 4d.: the expenses for the first half-year, 142,260l. 8s. 2d.; the second half, 132,328l. 2s. 3d.—together, 274,588l. 5s. 5d.; leaving a surplus of 111,830l. 15s. 11d. The total of the balance-sheet was 976,321l. 14s. 11d.—The following is the profit and loss account:—

To dividends declared 10th April and 16th October, 1845 .....	£44,520 0 0
Amount of special dividend of general meeting, 10th April, 1845, to remain in rate pay services of directors, 2000l., and award for claim against freight, in 1842, 515l. 5s. ....	2,515 5 0
Amount transferred to capital account, to replace sum written off in 1843 .....	79,790 16 8
Balance in favour of the company .....	36,285 0 7
Total .....	£163,111 2 3

By balance from last year's account .....

£50,107 5 5
Surplus of working account for the year .....
111,830 15 11
Interest .....
1,173 0 11—163,111 2 3

A SHAREHOLDER wished to know if the dividend was free of income tax?—The CHAIRMAN replied, there would be no reduction; and moved that the report be received.—Capt. BUSH, R.N., seconded the motion. He was glad to state that this was one of the most satisfactory reports they had received for a long time, and the greatest praise was due to the directors, as the vessels were all in the best condition, and the company had opened a new communication with the South Pacific by the Isthmus of Panama, from Chagres overland to the opposite ocean, where, in conjunction with the South Pacific Steam Company, the whole of the south-western coast, from Panama to Valparaiso, would have a regular line of packets, which would be so highly beneficial to their commercial intercourse with this country; and another great advantage that the directors had conferred was, that of establishing a moderate insurance upon special and other valuable property from Panama to England, which would be the means of creating the greatest confidence among merchants.

Mr. STEWART, in approving the report, said, that he could not express himself sufficiently at the improvements which had been made by the directors, and the satisfactory progress of the affairs of the company, as the dividend was full 7 per cent. on the capital. In 1844, it might be said to have been from 50,000l. to 60,000l.; but, in 1845, it was 60,000l. to 70,000l., and, after paying 25,000l. to the insurance account, there would be, he trusted, this year, at least 110,000l. surplus. It was really astonishing to find that, in so short a period, the company should have 14 splendid steamers swimming like ducks across the wide ocean, fearlessly rendering such great benefits to the commercial intercourse between the Old and New World.

The CHAIRMAN trusted that the sanguine views of Mr. Stewart would be realised.—The report was then adopted unanimously.

A SHAREHOLDER said, he was highly pleased to hear that the report was to be printed and circulated among the shareholders, as that had not been the case at previous meetings, and he had intended to have made a motion to that effect.—The CHAIRMAN replied, that the directors had already come to that resolution. It was now his duty to propose, in consequence of the lamented death of their late highly respected director, John Irving, Esq., that another director be elected in his place.—Capt. JOHN SHEPHERD, who was well known to them all, and having formerly given up being a director of the company, in consequence of other important transactions in which he was embarked, now presented himself as a candidate for the vacancy.—MICHAEL MCCHERY, Esq., and Mr. SHORT, both going out in rotation, also offered themselves again; the above three gentlemen were re-elected *nem. con.*—Mr. MONTAGUE made a few observations respecting the rental of the property at Southampton, to which the CHAIRMAN replied.—Mr. STEWART moved, that the most grateful thanks of the shareholders be given to the chairman and the directors for their indefatigable exertions in the affairs of the company.—The motion was seconded by Mr. POYNTER, and carried unanimously; when the meeting separated, highly satisfied with the report and statement of accounts.

From a notice handed round by the secretary, it appeared, that the *Tweed's* passage to Madeira, having been protracted from heavy weather for nearly five days beyond the estimated time, it is expected in consequence that the corresponding ship to the above from the West Indies, whose departure from Bermuda is dependent upon the arrival of the outward ship, will not reach Southampton until two or three days later from that date.

CORNWALL AND DEVON CENTRAL RAILWAY.—A meeting was held at Exeter, on Saturday last, in consequence of the rejection of the Cornwall and Devon Central Railway Bill by the House of Commons last week. The shareholders were unanimously of opinion, that the company should be dissolved, and the deposits returned, which was embodied in a resolution to that effect. Mr. Dommett (a solicitor of Chard) said that he represented 800 shares in the company, and he was in favour of proceeding with the undertaking. This opinion was received with disapprobation, and the meeting continued firm in their original design, after which they separated. A similar meeting was held at the Wellington Hotel, Glasgow, on Tuesday last, at which it was resolved to memorialise the directors to wind up the concern, or immediately call a meeting of shareholders to consider the propriety of doing so.

## Transactions of Scientific Bodies.

## MEETINGS DURING THE ENSUING WEEK.

Society.	Address.	Day.	Hour.
Royal Botanical .....	Regent's-park .....	Saturday .....	4 P.M.
Medical .....	Bolt-court, Fleet-street .....	Monday .....	8 P.M.
Medical and Chirurgical .....	33, Berners-street .....	Tuesday .....	8 P.M.
Zoological .....	11, Hanover-square .....	Tuesday .....	8 P.M.
Syrio-Egyptian .....	71, Mortimer-st. Cav.-sq. ....	Tuesday .....	8 P.M.
London Institution .....	Finsbury-circus .....	Wednesday .....	7 P.M.
Microscopical .....	21, Regent-street .....	Wednesday .....	8 P.M.
Westminster Medical .....	32, Sackville-street .....	Saturday .....	8 P.M.

## INSTITUTION OF CIVIL ENGINEERS.

MARCH 31.—The President (Sir JOHN RENNIE), in the chair.

The discussion upon the papers read at the last meeting was continued, and precluded the reading of any original communication. On Mr. Heppel's paper "On the Resistance to Bodies moving through Fluids," it was observed, that the method of experimenting while dragging the paddles through the water was objectionable, and liable to error, from the slight knowledge we yet possessed of the actual resistance of flat bodies in fluids. Mr. Russell gave an account of the experiments tried by him on vessels of large tonnage, dragging them through the water by a steam-tug, and recording the resistance by a dynamometer, the peculiarities of which he described, and exhibited the diagrams produced by it both with steam-vessels, and with locomotive engines. The instrument consisted of two pairs of plate springs of a parabolic form, as designed by M. Morice, and so proportioned as to have an equal degree of flexure throughout their length. Four self-inking pens, with different inks, recorded upon long strips of paper, wound upon barrels, all the effects of resistance &c.—by a series of curves, the area of which were afterwards measured by a simple registering instrument, which he also exhibited. For measuring the velocity he used the "Peto's" tube, and of its correctness, he spoke in the highest terms. Mr. Rennie's experiments on the subject were also discussed, as were also those of Col. Beaufoy, of Mr. Palmer, Sir John Macneill, and Mr. Walker, and the various results arrived at were compared. The general result appeared to be, that with regard to vessels, no general law could be universal in its practical application, as it might be modified by circumstances due to the forms of the vessels, the lateral friction and numerous causes, which must influence the result. In the application of the dynamometer to testing the resistance of railway trains was then discussed, and the members were generally surprised to find so small an amount of inequality of action at the starting of a train, and how soon the diagram showed comparative steadiness of traction. Still the delicacy of the instrument was such as to indicate distinctly every change of gradient, and even the entering and leaving a cutting, or tunnel, showing the greater or less influence of the wind. The several dynamometers with steel helical springs, and pistons, working in oil, were shown to be for such purposes nearly useless, as they smothered the results. It was stated, that the table of the force of wind at certain velocities, as given in Smeaton's reports, was erroneous by 50 per cent.—and that the front and the lateral action of the air upon a train constituted a large portion of the actual resistance: it was necessary to make these corrections, which, when made, showed an extraordinary accordance between the calculated resistance and that absolutely recorded by the instrument. The results given (although as yet not sufficiently positive to be calculated for general use) showed that a change must take place in the usual allowance for resistance on railways: these tables were promised to the institution within a short time.

In the renewed discussion upon Mr. Parkes' paper "On the Estuary of the River Severn," the extraordinary circumstances attending the tides, the "breaking bore," the mode of conducting the navigation, and the improvements now executing in the upper part of the river, were fully discussed. It was suggested, that one universal datum line throughout Great Britain referring to one standard—say, Trinity high-water mark—would be of the greatest utility, for tidal observations as for railway purposes; and it was proposed that the institution should request the co-operation of Government, in accomplishing this desirable object.

APRIL 7.—The conversation upon the Estuary of the River Severn being renewed, led to an interesting discussion upon the River Clyde, and the capability of improvements of that river, which will be continued at the next meeting. The paper read was a short notice by Mr. G. Buchanan, explanatory of a plan and sections of the Mid-Lothian coal-fields. The coal-field treated of is that by which the city of Edinburgh has long been supplied, and it was stated to be still very far from being exhausted, but that a very large portion of the coal seams were rendered useless, on account of the vast volume of water which, percolating through the old working pervaded the freestone strata, above the coal, and poured down in such quantities that the pumping engines were barely sufficient to keep open the present workings; it, therefore, became the object of the proprietors to obtain an extensive system of drainage throughout the coal-field. Mr. Buddle, of Newcastle, was requested to draw up a report on the subject, from which it appeared that the great difficulty to be encountered arose from the circumstance, that an open water communication existed throughout the district, and a pumping engine placed in any one spot would draw the water from every part around, which would render it an operation involving great labour and expense, which ought to be borne equally by all the mine proprietors. The paper then described the situation of the great dyke, by which the coal was intersected and thrown 80 fms. upwards; the north-east boundary, where the seams are standing on edge; and then gave the different seams of coal and their qualities. These were—

Splint coal .....	3-feet thick .....	Good quality.
Rough coal .....	3-feet .....	Do.
Buff coal .....	4-feet .....	Inferior quality, not much worked.
Diamond coal .....	4-feet .....	Valuable when found.
Jewel coal .....	4-feet .....	Most valuable.

The following paper was announced to be read at the meeting of April 21st.—On the combustion of fuel under steam boilers, with a description of Bodmer's fire grate. By J. G. Bodmer, M. Inst. C.E.

## SOCIETY OF ARTS.

APRIL 1.—WM. FOTHERGILL COOKE, Esq., Vice-President, in the chair.

The first communication was by Dr. Green, on a new portable stand for telescopes, with an equatorial movement, but without a polar axis. The subject of the improvement which Dr. Green has made, was introduced with an account of the telescope from the time of its discovery, and the various improvements which have been made upon it, up to the present time. He next alluded to the standards ordinarily used by astronomers, and pointed out the peculiarities of the Herchelian, acromatic, and other stands, and the objections to them, arising either from their unsteadiness, importability, or other causes: he then proceeded to point out the improvements which he had effected, by describing his own stand. "The true principle upon which every stand ought to be constructed (observes Dr. Green) is to have the heaviest end of the telescope supported on a solid foundation, and the moving power should be placed as far as possible from the centre of motion. To effect this, has been my aim on the stand which I now submit to the society." As a triangular support is found to be the most steady, it has been adopted in this case, and pervades almost every part of the stand. The object end of the tube, containing the great mirror, rests upon a circular disc, having a diameter about one-half larger than that of the tube—it is supported by 2 feet, which are not more than 3/16ths of an inch high, so that it may be said to rest solidly on the earth. To admit of easy rotation a second disc, of the same diameter, rests on the surface of the one already described, and moves on three friction wheels round a pivot passed through the centre of each. Near the periphery of this upper circular disc, upon the opposite sides of it, are fixed vertically two flat pieces of brass, about half the diameter of the tube in height: upon these the telescope rests by means of two horizontal arms projecting from the sides. The object of this arrangement is to form a universal joint, and prevent the telescope rotating on its own axis. The upper end of the tube rests upon a pair of shears, a little inclined toward the tube; thus the tube rests upon a large triangle, possessing the greatest steadiness. The shears are attached at their lower end to a horizontal bar, which slides in a groove; the bar is worked by means of a universal joint, and rack and pinion, and by which the slow motion in azimuth is given. The shears are so constructed, as to admit of being lengthened or shortened.

The fine movement in altitude for finding a star, is provided by a slide on the outside of the under part of the tube, to which slide the shears are attached; the slide is moved by a rack and pinion. The equatorial movement is the link of connection between the head of the shears, and the slide for the fine altitude movement, and is thus effected. The two legs forming the shears are hinged together at the top by a circular joint, in the centre of which is inserted a piece of brass, which carries the equatorial movement slide, and is worked by a tooth wheel and pinion. The equatorial slides are attached to the altitude slide by an universal joint. By placing the lower end of the telescope with the disk sit rests upon on a tripod, this frame may be made to suit the Newtonian telescope for viewing terrestrial objects.

The second communication was on a process for the preservation of animal and vegetable substances, with their forms and colours unimpaired, by Le Docteur Jacques Silvestri, of Naples. The nature of the discovery was described to the meeting, and a number of beautiful specimens of preserved animal and other substances were exhibited.—Specimens of a new process of dulling the surface of electrotypes, by Mr. Colchester; and also specimens of a new method of bronzing, by Mr. Loop; were also exhibited, and excited great interest.

DEBILITY AND WEAKNESS.—EXTRAORDINARY CASE.—CURED BY HOLLOWAY'S PILLS.—Mrs. Mitchell, of Bristol-road, Birmingham, was in that weakly state, as not to be able even to dress herself; besides which, there was a constant pain in the right side, preventing her from lying upon it; she was never free from headaches. Appetite and digestion were very bad, and her spirits always greatly depressed. Now, this lady, ere she became so extremely ill, visited various watering-places, where she had the best medical advice, but her case baffled the skill of all; and yet, to the surprise of her friends, she is restored to permanent health by the use of Holloway's Pills, and all drugs, and at Professor Holloway's establishment, 244, Strand.



## Mining Correspondence.

## ENGLISH MINES.

**BARRISTOWN.**—*Curry Taghmon, April 3.*—Since my last report, we have had our monthly setting—consequently, there has been no very great change. The bargains are as follows:—Engine-shaft, cutting lodge 24 fm. level—contract, 102 (6 men); eastern end, 18 fm. level, 41. 10s. per fm. (6 men); western end, driving on tribute, 41. per ton for ore, (4 men); winze, sinking 12 fm. level, west flat-rod shaft, 71. per fm. (6 men); footway shaft, 61. 6s. per fm. (6 men); cross-cut, north from engine-shaft, 24 fm. level, 31. 10s. per fm. (6 men); Nangles' shaft, 37. 10s. per fm. (6 men); adit end, east on middle lode, 11. per fm. (4 men); No. 1 pitch, 18 fm. level, west flat-rod shaft, 41. per ton, (4 men); No. 2, 18 fm. level, west flat-rod shaft, 51. per ton (2 men); No. 3, south flat-rod shaft, 18 fm. level, 41. 4s. per ton, (4 men); No. 4, 18 fm. level, east flat-rod shaft, 41. 4s. per ton, (4 men); No. 5, 18 fm. level, east flat-rod shaft, 51. per ton, (4 men); No. 6, 18 fm. level, behind eastern end, 51. per ton, (2 men); No. 7, east of Nangles' shaft, 51. per ton, (2 men).—T. ANGOVE.

**BEDFORD UNITED.**—*April 7.*—At Wheal Marquis, the lode in the 80 fm. level east is 2 ft. wide, composed of spar and mudiic, with spots of copper ore in places. We expect to cut the lode in the 70 fm. level east by the end of this week; the stopes, in the bottom of this level, is worth 151. per fm. In the 58 fm. level east the lode is 3 ft. wide, producing good saving work. At Ding Dong, the lode in the 24 fm. level west is 3 ft. wide, composed of spar, with stones of tin in places. At Wheal Tavistock, the lode in Phillips' engine-shaft (now 10 fms. 4 ft. under the 35 fm. level), is 2 ft. wide, producing good stones of ore—altogether, more promising than for some time past; in the 35 fm. level east and west the lode is without alteration; the lode in the south engine-shaft is from 5 to 6 ft. wide, composed of iron, gossan, and spar, with good stones of copper ore in places.—J. PHILLIPS.

**CALLINGTON.**—*April 6.*—In the 112 fm. level, driving north, the lode has not been taken down; the ground still continues hard. In the 100 fm. level the lode continues much the same as reported last week, leaving back that will pay for working at 8s. in the 11. on the lead; in the north end, the lode has not been taken down. In the 90 fm. level, driving south, the lode is worth 101. per fm.; in the north end the lode continues productive, leaving back and bottom that will work at a moderate tribute. The winze, which we commenced sinking in the bottom of the 100 fm. level, has been suspended, the water being so quick. At the north mine, in the 90 fm. level, both north and south, we are opening tribute ground. In the 80 fm. level south the lode has not been taken down; driving west, on the copper lode, the ground is favourable—the lode is producing stones of copper ore. In the 70 fm. level north we are opening ground that will set at 7s. in the 11.; in the south end, no lode taken down.—J. T. PHILLIPS.

**CHYPRAZE TIN MINE.**—In the 56 fm. level on the counter lode at Chypraze, we have had very good tin ground. In the 36 fm. level west we have cut through a cross-course, and had good tin. On the other side, a cross-cut is being driven to intersect Michell's lode at the 46 fm. level, where we hope to find the lode productive from appearances upwards. In the 16 fm. level east we recommenced driving about three weeks since; the ground is much improved, and is now producing tin. We hope shortly to intersect a north and south lode at this level, which has a bunch of lead 6 in. big in the shallow level above. The dividend at the next meeting will not be more than 51. per 1-18th, in consequence of our having been obliged to put in an additional boiler, &c. There is no prospect of our requiring another engine for some time, nor have I any idea that the cost will increase. Our cost for the last 18 months has not averaged 2001. per month, bills included.

**EAST TAMAR CONSOLS.**—*April 6.*—At Witson, in Hitchin's engine-shaft, we have been clearing the 46 fm. levels, north and south, the levels being so small we have been obliged to open to make a barrow road, which will be completed to day. In the 36 fm. level north, the lode is 18 in. wide, worth 121. per fm. At the south shaft the pitches are looking very well. At Furzehill, the stopes south, at the 30 fm. level, the lode is 18 in. wide, worth 101. per fm., likewise the pitches at this shaft are looking very well.—B. ROBINSON.

**GRAMBLER AND ST. AUBYN.**—Particulars of account-meeting, held on the mine, on Tuesday, the 7th inst.:

Dr.—Labour cost for January and February .....	£737 14 0
Merchants' bills .....	288 13 5—1026 7 5
Ca.—Copper ores sold 29th January .....	£270 14 7
Tin ores sold 14th March .....	63 2 1—933 16 8
Deduct lords' dues .....	58 16 5—875 0 3
Loss .....	£151 7 2
Balance due to pursers last account .....	34 11 6
Now due to pursers .....	£185 18 8

**GUNNIS LAKE.**—*April 7.*—At Chilsworthy, Bailey's engine-shaft is 5 fms. 4 ft. 6 in. under the adit level; the lode is 2 ft. wide, composed of gossan and spar, with a small proportion of copper ore, very kindly; we have not cut the lode in the eastern pits west. The shaft in the western part of the set is now 10 fms. deep, and we have driven a cross-cut, in which a promising lode, about 1 ft. wide, producing a little tin, has been cut; we purpose driving on the course thereof. All surface operations, owing to the late heavy rains, have been very much retarded, consequently, there is nothing new to report, as in respect of the new south lode.—W. RICHARDS.

**HARROWBARROW OLD MINE.**—*April 8.*—This mine is now dry and in good repair, 53 fms. deep. On Saturday last, we let 10 fms. to sink in the engine-shaft, and to do the necessary work therein for 2101., which will bring us to the junction of the two lodes, where we expect to find a mass of mineral. We set to six men the bottom level, on St. Vincent lode, going east, 4 fms., at 41. 10s. per fm.; the lode in this level is 3 ft. wide, composed of spar, mudiic, peach, and ore, and looking well. We also set to six men, 4 fms. in the bottom level, going west, at 61. 10s. per fm.; in the end the lode is large and hard, composed of capel, peach, mudiic, and ore—a strong firm lode. We set a winze to sink in the bottom of the adit, on St. Vincent lode, to four men, 4 fms., at 41. per fm. We are also making preparations to commence sinking a shaft on the Wheal Goodluck tin lode immediately.—B. COOKE.

**HARROWBARROW CONSOLS.**—*April 8.*—The lode in the adit end, going west, is 2 ft. wide, composed of soft sugary spar, mudiic, and copper; we drove 11 fms. on it last month. In the adit end, going east, the lode is 13 ft. wide, composed of carbonate of iron, spotted with silver, flookan, mudiic, &c.; drove 6 fms. last month. The water in Brewer's shaft, which was 5 fms. deep at the commencement of the working of the engine, on Harrowbarrow Old Mine, is now reduced to about 1 ft., and expect to see it dry in a day or two.—B. COOKE.

**HAWKMOOR.**—*April 7.*—The lode in the south engine-shaft (19 fms. 2 ft. 6 in. below the surface), is small and poor. The lode in the 15 fm. level, east of Hitchin's engine-shaft, is 2 ft. wide, composed of capel, and spar, with stones of ore in places.—P. RICHARDS.

**HOLMBUSH.**—*April 7.*—The shaftmen are busily employed in completing Hitchin's shaft to the 120 fm. level. In the 110 fm. level, west of Hitchin's shaft, the lode is 14 in. wide, and worth 181. per fm. In the 100 fm. level, west of ditto, on the north part, the lode is 18 in. wide, and worth 281. per fm.; in the 100 fm. level west, on the south part, the lode is 10 in. wide, composed of spar and spots of copper ore; at this level, driving south, the lead lode is 6 ft. wide, composed of spar, prian, and flookan, with small strings of lead; in the rise, over this level, the lode is 4 ft. wide, composed of prian, spar, and spots of lead. We expect to communicate this rise to the 90 fm. level very shortly; in driving south from the flap-jack lode, we have intersected several small branches within the last week, composed of spar, mudiic, and spots of copper ore; we have also got an increase of water from this level, which indicates to us that there is a lode not far south of the present end; the lode in the winze, sinking below the 90 fm. level, on the lead lode, is 3 ft. wide, composed principally of flookan, with spots of lead; the lode in the 90 fm. level, on the south part, being heaved south by the slide, as we noticed in our last week's report, we are still driving in that direction, in order to find it. In the 80 fm. level, west of Hitchin's shaft, the ground is favourable for driving. In the 12 fm. level, west of do, the ground is not so favourable.—W. LEAN.

**LEWIS.**—*April 4.*—Kuskey's engine-shaft is 6 fms. 1 ft. under the 42 fm. level; the lode in the shaft is 2 ft. wide, a kindly lode, with spots of yellow ore, white lead, jack, mudiic, &c.; since our last report of the lode, in the above shaft, we have seen the intersection of one of the south branches, the junction of which had a tendency to improve the appearance of the lode. If the ground continue favourable, we expect to see the intersection of another branch still to the south; and without a greater improvement, we shall not be enabled to recommend sinking any deeper after this month. Wheal Nutt engine-shaft is 5 fms. 4 ft. under the 50 fm. level—ground rather harder than usual, besprinkled with spar. The lode in the 50 fm. level east is 2 ft. wide, worth 61. per fm. for tin; the lode in the 50 fm. level end west is 4 ft. wide, producing some tin—this end is now suspended until the copper ore shaft is holed to the same level. The lode in the 40 fm. level west is 2 ft. wide, yielding some tin—a very promising lode. The lode in the 20 fm. level west is 1 ft. wide, set at 10s. per fm., and 10s. in the 11. for saving the tin; the ground in our north cross-cut at this level is much the same as when reported last, continuing to be favourable. The lode in the 10 fm. level end west is 2 ft. wide, set at 10s. per fm., and 8s. in the 11. for saving the tin. The masons are getting on well with the burning-house; we expect to get it in course again the next lot of tin is in course for burning, in about a fortnight or three weeks.—S. S. NEMZ.

**NEVER VALLEY.**—*April 6.*—I beg to say, that the tin lode on the engine-shaft, sinking below the 80 fm. level, is just as last reported—the north part, or branch, being about 8 in. wide, good work for tin; the south part is not doing through; the lode in the 90 fm. level, driving west, is 3 ft. wide, producing some tin; the lode in the eastern end is at present small, about 6 in. wide, composed of spar, intermixed with lead and spots of copper ore. The

lode in the 20 fm. level west has a more promising appearance—it is about 1 ft. 6 in. wide, composed of capel, peach, and mudiic, with a branch of zinc and mudiic on the foot wall 4 in. wide. At the south shaft, the water is in for the 40 fm. level; this level, both east and west, is full of stuff near the shaft, which is sunk on the course of the lode from the 30 fm. level, and the shaftmen are now putting in casing at this place, to get the kibble down for clearing and securing the shaft and levels. The 30 fm. level is cleared 19 fms. on the course of the silver lode, which will average about 1 ft. wide, composed of flookan, peach, and spar; the cross-cut, towards the copper lode, is favourable for driving. The 20 fm. level is cleared 28 fms. east, lode 9 in. wide, composed chiefly of flookan. The 10 fm. level is cleared 11 fms. 3 ft. east, and 21 fms. west—the lode will average about 9 in. wide, composed of flookan, peach, and killas. The silver lode in the shaft, at Wheal Sisters, is 2 ft. wide, composed of flookan and part gossan.—S. RICHARDS.

**TRESAVEAN.**—Particulars of account-meeting, held on the mine, March 31:

Dr.—Amount of cost for January and February .....	£3878 13 7
Ca.—Amount of copper ores sold Dec., 1845, and Jan., 1846 .....	£3818 1 3
Deduct lords' dues .....	191 3 0—3626 18 3
Loss .....	£251 15 4
Balance in hand end of December, 1845 .....	925 12 1
Balance now in hand .....	£673 16 9

**Report.**—We shall finish cutting down old east shaft, below the 272, north part of lode, by end of April, and commence sinking below the 286; the lode is 3 ft. wide, worth 361. per fm. The 286 fm. level, east and west, is at present unproductive. At the 248 the lode is improved. The 236, east of Harvey's, is driven in the Barrier sett. In the 248 fm. level, east of Harvey's, the lode is 2 ft. big, with ore.

**TRETHELLAN.**—Particulars of account-meeting, on the mine, March 31:

Dr.—Labour cost for January and February .....	£683 7 6
Merchants' bills for ditto .....	212 8 9—895 16 3
Ca.—Copper ores sold Dec. and Jan. ....	£1413 3 5
Deduct 1-15th for lords' dues .....	94 4 2—1318 19 3
Profit .....	£423 3 0
Balance in favour of last account .....	963 13 9
Total .....	£1385 16 9

**Report.**—The pump shaft, below the 146 fm. level, is 9 ft., sinking by eight men. The 146 fm. level, driving east of shaft, is in 9 fms.; the lode in this end is small. The 156 fm. level is driven in this sett 5 fms.; lode unproductive. The 136 fm. level is driven south of shaft, towards Magor's lode, 28 fms., and have about 20 fms. further to drive, to intersect the lode. Pitches not looking so well; expect to raise next two months 250 tons.

**TINCROFT.**—*April 6.*—The new engine-shaft is now about 6 fms. below the 90 fm. level; no lode in the shaft, but we find some branches containing ores, falling in from the north, and going through to the south; these branches, we expect, will improve the south lode, as they fall in with it above, or at the 100 fm. level. The lode in the 90 east is 3 ft. wide, producing some good quality ore, worth about 101. per fm.; we expect to meet with the cross-course in this end in a fathom or two more, beyond which we had a good lode in the level above; the lode in the west end, same level, is 20 in. wide, composed chiefly of mudiic, with stones of good quality ore. The lode in the 80 east is 3 ft. wide, producing coarse quality ore; the lode in the 80 west is 3 ft. wide, worth 81. per fm. The lode in the 70 east is 3 ft. wide, producing tinstuff. The 60 and 50 ends east are also producing saving work for tin. The lode in the 70 west is 20 in. wide, but disordered by cross branches, and at present unproductive. The 60 and 50 ends west are producing some ore, and kindly. The 40 west, which is being driven by tributors, has very much improved in the past week. At Palmer's, the lode in the 70 west has very much improved in the past week; it is now worth 201. per fm., and likely to be better soon. We shall commence sinking Palmer's shaft below the 70 fm. level in a few days; the lode, which is now standing to the north, will soon be in the shaft, as we sink. The 60 west is producing good stones of ore, and kindly. The pitches in the back and bottom of the 60 and 48 fm. levels continue to produce fair quality ores. At the south mine, the lode in the engine-shaft, sinking below the 152, is 3 ft. wide, worth 601. per fm. for the length of the shaft, sinking at 421. per fm.; the lode in the 102 east is 3 ft. wide, 1 ft. good work for tin, worth 201. per fm.; the lode in the west end, same level, is 23 ft. wide, worth 401. per fm. The 142 east is worth 201.; the west end, same level, is unproductive. The lode in the 120 east is 23 ft. wide, worth 151. per fm. The lode in the 110 east is 23 ft. wide, worth 101. per fm.; beyond this end, in the level above, we have a good lode for tin, working at 2s. 9d. from 11.; on the whole, our prospects are good.—WILLIAM PAUL.

**TRELEIGH CONSOLS.**—*April 4.*—Christie shaft, below the 90, sinking in the country—the ground favourable; the 90, east of ditto, lode not quite as large as reported last week, worth about 251. per fm.; the 90, west of ditto, lode about 1 ft. wide, but little ore; the 80, cross-cut south of ditto, we have not cut the branch yet in this cross-cut. Garden's shaft, below the 80, lode rather larger than last week, and worth much the same per fathom—351. The 80, west of Good Fortune, just commenced driving; but have not taken down the lode. The 70, west of ditto, lode 5 ft. wide, with stones of ore. The 60, west of Symons's, lode 2 ft. wide, producing stones of ore. The 50, cross-cut north, we are getting on better, the ground rather more favourable. The 50, west of Symons's, no lode taken down since last report. In the rise, above the 20 west, lode about 1 ft. wide, but little ore. In the winze below the adit, lode 8 in. wide, in a disordered state, no ore. The old shaft on Good Fortune lode, we have cleared it up to the bottom, which is 17 fms. from surface, and are now sinking it perpendicular until it meets the south lode, which we expect about the adit level, in which we have a large kindly lode.—W. SYMONS.

**UNITED HILLS.**—*April 7.*—In Williams' shaft, during the past week, we have broken the lode in this shaft—it still continues 2 ft. wide, good ore. In the 80 fm. level, in this end, the lode is 4 ft. wide, coarse in quality. The 70 fm. level, east of eastern shaft, still driving south; west of James's, the lode is 3 ft. wide, producing some stones of ore. In the diagonal shaft, we are still sinking to the north of the lode; during the past week we have fixed a small lift in this shaft, which will enable us to sink with more speed in future. In the 60 fm. level, east of eastern shaft, the lode is 2 ft. wide, 18 in. ore of fair quality; west of Harper's winze the lode is 3 ft. wide, ore throughout, of low quality; in the stopes, east of Harper's winze, the lode is 3 ft. wide, ore throughout, of fair quality; in the stopes, west of James's shaft, the lode is 5 ft. wide, 3 ft. ore of average quality. In the 50 fm. level, eastern end, the lode is 18 in. wide, producing some good stones of ore; the cross-cut continues without alteration since last week. At Wheal Charles, in the 50 fm. level, no lode broken in this rise for the past week. In the 40 fm. level, east of Gibson's, the lode is 18 in. wide, producing but a small quantity of ore. At Wheal Sparrow, in the 40 fm. level, the lode is 2 ft. wide, coarse in quality. In the 30 fm. level the lode is 2 ft. wide, 1 ft. ore of fair quality.—T. TREVENEN. R. WILLIAMS.

**WEST WHEAL JEWEL.**—*April 6.*—The ground in the 115 cross-cut is still hard; driven in the past month, 1 fm. 3 ft. 6 in. In the 100 fm. level west, on Wheal Jewel lode, the lode is 15 in. wide, worth 51. per fm.; driven, 2 fms. 4 ft. 6 in.; in the 100 fm. level east, on ditto, the lode is worth 81. per fm.; driven, 2 fms. 2 ft. In the rise, in the back of the 85 fm. level west, on Williams's cross-course, we have communicated this with the winze, sinking below the 70, in the past week; rose, 5 fms. 8 ft. Sunk in the winze, below the 70, 7 fms. 2 ft. 6 in. In the 12 fm. level, east of little cross-course, on Wh. Jewel lode, the lode is 15 in. wide, promising for ore; driven, 1 fm. 3 ft. 6 in.; the 12 fm. level east, on Tolcarne tin lode, is 15 in. wide, containing only occasional stones of tin; driven, 2 fms. 2 ft. In Wilkinson's engine-shaft, sinking below the 80 fm. level, the lode is 23 ft. wide, composed of spar, mudiic, and stones of copper ore, sunk, 1 fm. 3 ft. In the deep adit level west, on ditto, the lode is small and unproductive; driven, 1 fm.—S. LEAN. R. JOHNS.

**WHEAL BASSET.**—Particulars of account-meeting, held on the mine, on Monday, the 6th inst.:

Dr.—Labour cost for January and February .....	£1776 14 4
Merchants' bills for ditto .....	576 17 0—2353 11 4
Ca.—Copper ores sold January and February .....	£3048 8 3
Deduct for lords' dues .....	152 8 5—2895 19 10
Profit .....	£542 8 6
Balance in favour last account .....	879 1 9
Balance at bankers .....	£1421 10 3

**WHEAL GILL.**—*April 3.*—Having yesterday, by desire of some of the interested parties, inspected the new discovery at Wheal Gill, we were gratified to find that the reports respecting it were by no means exaggerated; and, as it was intimated to us that a few observations on the nature and qualities of the lode would be desirable to the company, we have much pleasure in forwarding the same to you, as the recognised organs in their behalf. The lode in the 16 fm. level, driving east, is about 20 in. wide, worth 101. per fm.; in the back, for the last 6 fms. behind the end, it averages about 3 ft. wide, 2 ft. of which is of excellent quality, worth from 201. to 251. per fm.; we estimate this back would set on tribute, at 4s. in the 11., and should the ore continue in the end, you will shortly be in a position to pay the costs of the mine from its produce; and, as far as we could see and learn, the lode is considerably better in the bottom of the level. The 40 fm. level is being driven east on a large lode, spotted with copper pyrites; there is about 29 fms. further to extend this level to get under the deposit of ore (above described) in the 16 fm. level, but previously the cross-courses in the vale will have to be penetrated, on the accomplishment of which the water will most probably be drained from the bottom of the 16 fm. level, which will enable you to sink in the ore, and will, therefore, naturally increase your returns. East from the cross-courses the stratum is materially altered in its general character, being paler, softer, and less intermixed with quartz; it is, doubtless, to this change the present richness may, in a great measure, be ascribed. We consider ourselves, ere we close our remarks,

in common justice, bound to observe, that the various operations in the mine have been carried out judiciously and economically, which reflect credit on those who have their direction; and, from the present indications, the mine is in a fair way to become both profitable and lasting.—J. B. CLEMO. W. WHITFORD.

## PRICES OF MINE MATERIALS.

Materials.	January.	February.
Coals, carriage included .....	16s 0d	16s 0d
Timber, bulk .....	1s 3d	—
Mine candles .....	4s 9d	4s 11d
Best ditto .....	5s 2d	—
Tallow .....	43s 0d	—
Olive oil .....	3s 6d	—
Gunpowder .....	36s 0d	36s 0d
Iron shovels .....	0s 5d	0s 5d
Safety fuse .....	0s 5d	0s 5d
Rope .....	36s 0d	—

## MINING IN CORNWALL AND DEVON.

At the suggestion of several subscribers to the Journal, and those interested in mining adventures, but not possessing local information, or the opportunity of acquiring it, we have determined on submitting henceforth, notices in our columns of the several mines in the counties of Cornwall and Devonshire, to which we shall append those in the "Sister Isle." In so doing, we can lay down no particular course as to the order in which they may be taken, as much must depend on the information we may acquire from time to time, and for which we must, in a great measure, be indebted to correspondents; our object being to render statistical data, as regards the several mines, without the slightest attempt of reporting on the prospects which present themselves, and which are at all times better learned from the reports of the mining agents. It cannot, however, be denied, that shares are held by parties in London, and out-adventurers generally, who are, if not innocent of the locality of the mine in which they hold an interest, possessed of but little information as to the extent of sett, the dues or royalty, the term of lease unexpired, the names of the agents, pursers, &c.—while the reports are too generally of a character to afford but little information to the uninitiated. Let it be, then, our province to render the desired information; and, if we mistake not, our column of mining statistics will be consulted with interest and advantage. To render our task, however, perfect, we repeat, we must, in a great measure, rely on those possessing information—while we have no hesitation in stating, that such as we may submit, may be confidently relied upon, as, in a majority of instances, such will be the result of personal inquiry and observation. On the present occasion, we take up two adventures, which, although comparatively unknown, will at once illustrate the principle on which we intend acting. We shall next record some of the "old established mines," and continue our notices until we have rendered a true and perfect account of the numerous mining enterprises with which this country abounds, which, when completed, with an appendix, will, we doubt not, be hailed with satisfaction by all embarked in mining adventures. Carn Brea, Tresavean, Tincroft, and Holmbush, will form subject for our next number. Wheal Maria, Callington Mines, Trethellan, and Tretoil, will follow; succeeded by Stray Park, United Mines, "Consols," East Wheal Rose, &c., mingled with statistical data as regards new adventures.

**LANEHOOD MINE.**—This sett, which is bounded by the Tamar, is situate in the parish of Lamerton, county of Devon, and held for 21 years, from May 21, 1845, at 1-12th dues. The adventure is divided into 2048 shares, on which 17. per share has been called, exclusive of the purchase-money. Eleven lodes have been discovered, and two shafts sunk, although but to an insignificant depth. At Hays' (the engine) shaft, an engine of 60-inch cylinder, with 10-ft. stroke, is in course of erection, which, by contract, will be at work by 30th June; the other (Davey's) shaft is going down to take one of the principal lodes, it being intended to communicate the working of the two shafts by means of flat rods. The extent of the sett is about 400 fms. on the run of the lodes, and a like distance across the veins, which, as observed, are 11 in number. The ore is of the ordinary description, or yellow sulphate of copper, producing 8 to 12 per cent., but none has yet been sent to ticketing. The business of the company is conducted at the offices of the secretary (J. Crofts, Esq.), 4, King-street, Cheapside. The present committee consists of Messrs. J. Edwards, P. Davey, jun., W. Morrison, D. Nutt, J. J. Hays, Thomas Hebard, and G. W. Price; Mr. G. W. Snell, of Callington, being the purser, and Capt. John Tabb, the resident mining agent. Capt. John Williams, of Lanivet Consols, is the superintending agent. Meetings of the shareholders, or adventurers, are held on the first Thursday in every alternate month; and accounts, or reports, received from the mine fortnightly, which are open to the inspection of the shareholders. General or special general meetings may be convened, one of which is announced for the 16th inst. The principle of holding two-monthly meetings we are glad to find adopted—this being the first instance we have met with in London; while there are too many companies, the directors of which think one in 12 months is ample, and, perhaps, even so far as they are themselves concerned, then too frequent.

**WEST WHEAL SHEPHERD.**—This mine is situate in Perranzabuloe, in the county of Cornwall, lying about four miles west of the celebrated East Wheal Rose Mine, and is held under Sir R. Vivian, on lease, for 21 years, at 1-16th dues. Seven lodes have already been discovered, six of which have been opened upon, producing lead, with silver, and an adit driven 70 fms. east, and 40 fms. west, of the engine-shaft, which latter is sunk 21 fms. under adit. A drawing shaft has also been sunk, 21 fms. from surface, 90 fms. east of the engine-shaft, with the view of taking the lode at a further depth of 23 fms.; it being intended, in the meantime, to drive a cross-cut to intersect the lode. There is a water-wheel of 32 ft. diameter, with a plentiful supply of water, with crushing machine, &c. A cross-cut has been driven from the engine-shaft at the 12 fm. level, so as to intersect the middle lode (Davey's), which is from 3 to 4 ft. big; on this lode, 27 fms. have been driven west of the cross-cut, in which several tons of rich silver-lead have been raised, with a leader of 8 in. to 1 ft. big, in the bottom of the level; workings have also been prosecuted 11 fms. west of the cross-cut. A cross-cut at the 21 fm. level, under adit, is also about being driven from the engine-shaft, which will take the lode in about 6 fms. driving. The mine is divided in 256 parts, 31. per share paid; the majority of which are held by Messrs. Davey, of Redruth, Messrs. Tilly, Bull, Capt. Rabey, and others, in the county. No steam-engine is at present employed, and the adventure holds out promising prospects. The mine is carried on on the cost-book system; the accounts being made up monthly. Mr. R. J. Hocking, of Truro, purser.

## MINING NEAR TAVISTOCK.

[FROM A CORRESPONDENT.]

**WHEAL ASH.**—Of all the numerous setts recently taken up in this district, perhaps few, if any, present so many indications of future good as this adventure. In addition to the proceedings on the mine (reported last week) they have commenced driving an adit on the small cross-course, which is about 2 ft. wide, and carries a most beautiful gossan, with every promise of producing lead. The object in driving this level is to cut the north, east, and west lodes; and, from the extent of ground driven last week, it may be reasonably assumed that it will be intersected by the end of May.

**GEORGE AND CHARLOTTE.**—The lode in the deep adit continues to improve, and is estimated worth 201. per fm.; the ore is of a very excellent quality, and there are several tons at grass; preparations are in course of making for dressing the same.

**CREBOR CONSOLS.**—They are pressing on the 24 fm. level, in full expectation of cutting a course of ore, as soon as they reach the point under the level above, where they have a valuable lode going down. There is very little doubt of this mine making a first-rate speculation, and they have a very good pile of good quality ores on the floors, ready for dressing.

**WHEAL FRANCO** continues to improve in depth, and their increased monthly returns show that the mine is progressing fast to a dividend.

**BIRCH TORR MINES.**—The shallow level at present is not so productive as it has been; but the deeper ones are looking well. The stopes, over the 50 fm. level, is taken at 3d. in the 11. by a pair of tributors, who had it during the former workings, and there are eight to nine other stopes set at very low rates. It is calculated that 4001. of ore will be sold this month.

**SOUTH DEVON CONSOLS.**—This sett is to be worked with the utmost vigour. A water-wheel is to be erected immediately, and the shaft is nearly completed. They have discovered a good lead lode not before worked on—whilst the other lodes are assuming a most promising appearance.

[FROM CORRESPONDENTS.]

**ST. ANDREW AND NANGILES.**—The 80 east and west is improved.

**WHEAL BEENEY** (near Boscawen).—From a communication received from an experienced practical mining agent, we learn that this sett is being worked under the most promising results. The sett is nearly a mile in length, and half a mile in width, on the north coast of Cornwall. The rise of the hill is very considerable, being 80 fms. above high water mark; the country about the lode is most congenial for metalliferous deposits. They have discovered three east and west lodes, and two cross-courses; the east and west lode on which they have driven about 28 fms. has been productive of good silver-lead, containing from 30 to 40 ozs. of silver in the ton, and 50 per cent. for lead. There has been but little done on the other two east and west lodes, although the appearances on the backs of the lodes are very promising. The cross-courses are large, and of very favourable appearance, but require to be more fully developed; this delay has been deemed necessary, until they had ascertained the number of lodes in the sett, and their relative positions, before they sunk their engine-shaft. In driving the adit level they have gone through a very good branch of lead, which they are stopping away, and have a very good pile of work ready for dressing. Their present intention is to drive on both the cross-courses, so as to intersect the east and west lodes, at a depth of about 60 fms., and they fully anticipate a course of lead at their conjunction. It is the general opinion of practical men that the mine will be remunerative, with a small outlay.



**SOUTH CALLINGTON.**—The adit level is producing lead ore; and from the quantity of water issuing from the lode, together with other favourable indications, which (at present) present themselves, there remains very little doubt of their approaching very near a good bunch of ore.

**WHEAL ELIZABETH (near Callington).**—A very important discovery has been made here in the whim shaft—the lode is 10 in. wide, solid lead, which is also rich for silver. At the old mine, in sinking on the lode from surface, they have found the lode to be very productive, large stones of lead of an excellent quality throughout—this was cut a little east of the old wheel pit. These discoveries will, no doubt, stimulate the adventurers to greater activity, which certainly the sett deserves.

**PAR CONSOLS MINE.**—On Monday last, the 6th instant, a powerful steam pumping-engine, of 80-inch cylinder, was set to work in the above mine, by Mr. William West, the well-known Cornish engineer, and went off in admirable style, in presence of J. T. Treffry, Esq., N. Kendall, Esq., Rev. Francis Kendall, Capt. Davis, R.M., Capt. Puckey, Messrs. Wheeler, Petherick, and Tallick (of St. Austell), and many other gentlemen of the neighbourhood. This stupendous machine was manufactured by Messrs. Harvey and Co., of Hayle Foundry, and is considered to be one of the longest stroke engines in the county—viz., 12 ft. The machine itself is a complete and perfect piece of mechanism, and was admitted by all present to be unrivalled in the county, or even in the world. The ease and freedom with which this gigantic mass of iron was put in motion was truly astonishing, and reflects great credit on the engineer. The whole weight of iron of which it is constructed (including boilers) is about 200 tons. A capstan, worked by steam-power, is connected with the engine-shaft, and has effected a saving of nine-tenths of the outlay, compared with manual labour, being the second of the kind erected by the engineer—the first being at the Tamar Mines, in Devon. The connecting rods in the shaft are quite on a new principle, being of the very best hammered iron, and invented by the engineer—a model of which was exhibited at the Royal Cornwall Polytechnic Institution, at their annual meeting in 1844, and is considered to be an important improvement in the working of large steam-engines, by preventing the too frequent breakages of wood rods, the consequence of which is well known to all conversant with Cornish mining. The rods were manufactured by Messrs. Sandys, Carne, and Vivian, at Hayle Copper House Foundry. This is the tenth steam-engine which has been set to work in the mine in the short space of six years; and have been constructed on three different principles, involving a great outlay of capital. Mr. Treffry, notwithstanding he holds about three-fourths of the mine, has rendered every facility to the scientific engineer in carrying out his views for the purpose of economising fuel, &c. The mine is considered in an infant state, and her prospects were never more encouraging than at the present time. The parties afterwards retired to the Fowey Consols Mine, where a dinner was provided on the occasion, and spent the remainder of the day in the greatest conviviality.

#### MOCABAS AND COCAES UNITED MINES.

SIR,—With reference to your remarks, and those of your correspondent, in your last Number, on the relative position of the "stamped" and the "unstamped" shareholders in the Mocabas and Cocaes Mining Company, as you state that your columns are open to all parties, I beg to observe, that the case has, indeed, been "so well argued," as you say, "on one side," as to wholly overlook the claims of that class, of whom I am one; who, having hung myself up with these and other choice securities of the same kind, became unable, though exceedingly and avowedly desirous, to comply with the arrangement effected, as I understand, with about three-fourths of the proprietary. I had no idea of shirking further outlay and responsibility. It would then be manifestly unjust to say to me, and all who were similarly circumstanced:—"Because you are unable to go any further with this speculation, we, who are able, will appropriate to our own exclusive benefit what you have already paid, and subscribe what is required." We then are to be made the simple instruments, *pro tanto*, of enabling our more powerful co-partners to obtain the ultimate gains, at a positive advantage, by reason of our weakness—aye? This may be very good law at No. 26, Throgmorton-street; but I apprehend, Sir, that the Lord Chancellor will hold a very different doctrine. Where is our share of the "negroes and plant" that I heard so much about, and for which my shares were my "title deeds"? To those who were unable to go on furnishing any more funds to carry on the concern, an option ought to have been offered, as is usual in such cases. But, here, the *unable* are classed with the *unwilling*, and both alike are represented by the "unstamped." I claim nothing unreasonable, but, having been all along desirous of complying with the arrangement, I think it will only be consonant with justice, that I should be allowed either to pay up what others may have paid with interest—be paid ratably according to what I have advanced—or my interest in the concern to be valued, and bought out. At all events, I have little doubt, Sir, but that when the thing is looked at in all its bearings, there will be found probity and high-mindedness enough, among at least a part of the directors, to take up and advocate my claims, and the claims of those who are similarly circumstanced with me. The monstrous doctrine of *noles volens* appropriation will not be tolerated for one moment in an English Court of Chancery; and, if the "unstamped" will coalesce, I doubt not but that sounder views will be taken by the directors, without their being driven thither for redress. This is not the first concern that has been in this dilemma, but I believe that it is the first that has attempted to appropriate to themselves the property of the less wealthy portion of their co-adventurers, because they were unfortunately unable to go on advancing more capital than it was represented as necessary when they were invited to join in the adventure. As a guarantee for my good faith, I enclose you my card, although, for obvious reasons, I do not wish my name to be published.

London, April 8.

AUDI ALTERAM PARTEM.

#### PATENT GALVANISED IRON COMPANY.

In last week's Journal we published a report of the proceedings at the half-yearly meeting of shareholders in this company, held at the London Tavern, on the Tuesday previous. We have since received a copy of the report then submitted, but the length of the document precludes our giving more than the following abstract of its contents:—After alluding to the fluctuations in the iron trade, and expressing confidence in its prospects of permanent prosperity, notwithstanding the present temporary depression resulting from over speculation in Scotch pigs, the directors congratulate the shareholders on their freedom from anxiety on the score of these fluctuations, arising from their having entered into large and valuable contracts, sufficient to insure them profitable employment for nearly three years from the present time. They also congratulate the shareholders on the acquisition of Mr. Mathews, whose influence, talents, and experience, have already proved of great service to the company. The Corby's-hall and Tiled-houses estates were delivered over to the company on the 1st January, and the three furnaces and mineral workings thereon are in full and satisfactory operation. At the Phoenix Works a new mill has been erected; and such is the force and completeness of these works now, that very shortly they will turn out from 350 to 400 tons per week of finished iron. Particular attention has been given to shipbuilding iron, for the manufacture of which powerful and peculiar machinery has been constructed, and is now at work. In Wales considerable progress has been made towards the completion of the new furnaces; one of which is finished, and three more are in a forward state. The engine-house is ready for the reception of the blast engine, which is now on its way to the works. It is not, however, intended to blow in more than one of these furnaces at present; for the difficulty of obtaining hands has been so great, that it has been found impossible to raise materials in sufficient quantities to justify the directors in having six furnaces in full operation, till a large stock has been accumulated. Some delay, therefore, must take place in this branch of the company's proceedings; but the directors expect that, before the next half-yearly meeting, the Garth furnaces will be making iron, and that at Cefn Cwse will be blown in almost immediately. Meantime, it will be very satisfactory to the shareholders to learn, that Mr. Job Taylor, one of the most experienced mine agents in Staffordshire, has inspected the company's property in Wales, and pronounced it to be one of the most eligible and effective, as respects the supplies both of coal and ironstone, that he has ever seen; while it is Mr. Mathews' opinion, that taking the abundance of the minerals in connection with the facility with which they may be worked, it is possible to make iron equally economical as at any works in Great Britain. The directors feel much satisfaction at having their own before expressed opinions thus borne out by such competent authorities. Much stress was laid in the report on the advantages that will be derived by the company, from the construction of the Llynvi Valley and South Wales Junction Railway—a short line of seven miles, intersecting the Garth property, and bringing it into connection with proposed extension line of the South Wales Railway, and through it with all the ports on the Bristol Channel, and with the manufacturing districts of Staffordshire. This deviation is intended to pass north of Bridgend, and bringing the main line, through the Cefn Cwse works, will, in conjunction with the Llynvi Valley line, make a railway communication of the most complete character, and add incalculably to the value of the property. Feeling it impossible to estimate too highly the benefits thus to be obtained. The directors have subscribed 20,000*l.* towards the capital of the Llynvi Valley Company, and three of their body have joined the direction. Of galvanised iron the manufacture, during the past half-year, has doubled that of the preceding; and the demand, during the current half-year, is increasing in the same ratio. The works at Millwall, at Lea Brook, and at Birmingham, are now in full operation; and measures are in contemplation for increasing their productive power. In addition to the Houses of Parliament, which continue to require large quantities of ornamental as well as plain castings, extensive contracts are on hand for the Government dockyard at Deptford, Woolwich, Plymouth, &c. The ships at Deptford, constructed wholly of galvanised iron, rank as the most beautiful structures of the kind ever erected in this country. Testimonials of the most satisfactory character are daily received, of the successful application of this material as sheathing for ships; and the directors entertain a confident opinion, that the demand for this

purpose will ultimately render the manufacture of sheathing plates one of the most important branches of the company's trade. The patent litigation is yet pending; but arrangements have been entered into with the patentees, by which a more vigorous prosecution of their rights will be effected; and the question brought to issue very shortly. Every confidence is entertained of success in establishing the validity of the patent. The accounts which were laid in detail before the meeting, exhibited an expenditure on capital account of 30,298*l.* 2s. 5*d.*,—of which 15,498*l.* 6s. 3*d.* has been expended on the Phoenix Works, and the remainder almost entirely in Wales. The net profits on the various branches exceed 9000*l.*, admitting of the declaration of a dividend at the rate of 8 per cent. per annum, and leaving a surplus of 960*l.*, to be added to the reserved fund. This dividend being at the same rate, though made on a larger capital than at midsummer, would, it was expected, be satisfactory to the shareholders. The deed of settlement would be ready for the signature of the shareholders, previous to the payment of the dividend. In addition to William Mathews, Esq., of Edgbaston, the board of directors has been strengthened by the accession of Henry Tuffnell, Esq., M.P., and George Bowness Carr, Esq.;—thus completing the number of nine directors.—The report, we need hardly add, gave great satisfaction to the numerous proprietary present.

#### CONSOLIDATED TRETOH MINING COMPANY.

A special general meeting of the shareholders of this company was held on Saturday last, the 4th inst., at Mr. H. Thomas's mining offices, 8, George-yard, Lombard-street, for the purpose of taking into consideration, and determine, or otherwise, on the forfeiture of shares in arrears of payment of calls, and for the general business of the company.—Mr. BENNETT was called upon to preside as chairman.—Mr. HENRY THOMAS (the secretary), after having read the advertisement convening the meeting, read the report and statement of accounts.

##### DIRECTORS' REPORT.

The objects for which the directors have convened this meeting, being to report on the progress and the prospects of the mine—the state of the accounts—to make certain financial arrangements—and to submit for consideration the propriety of forfeiting certain shares—will do so as briefly as possible. With reference to the progress and prospects of the mine, the directors feel pleasure in referring to its present condition in comparison with the past—the machinery now erected, and in full working, being competent to its wants, and the various operations of sinking, driving on the old, or Slide-park, lode, cross-cutting to the south lode, &c., being now actively prosecuted. As Capt. Williams' report goes into detail on these points, and will now be read, the directors will not enlarge thereon, further than to repeat the expression of their confidence in the mine:—

##### MINE REPORT.

Tretoh Mine, April 1.—Since the annual meeting in June, 1845, we have opened 155 fms. of ground on tutwork in different parts of the mine. The new engine-shaft has been communicated to the 50 fm. level, and the 40 cross-cut driven 30 fms. south of Russell's shaft. In sinking new engine-shaft the last 5 fms. we intersected a lode underlying south, which has already been reported John's lode, varying in size from 9 to 20 inches, producing good stones of ore, and is a promising lode; we have cut this lode in the cross-cut at 40, which has also been reported 6 in. wide, producing a little ore. In this cross-cut we have also cut Tregellas' lode, it is about 15 in. wide, composed of capel, spar, and yellow ore, not rich where intersected; we have only just cut through it; this lode is 8 fms. south of John's lode, and 27 fms. south of the Slide-park lode, and underlays north about 18 in. In one fathom—consequently these lodes will not be far asunder at the 70 fm. level. The Mine Park lode, which underlays north, has not been intersected under adit, and is distant from Tregellas' lode in this cross-cut at the 40 about 35 fms.; this lode has been driven on at the adit from 40 to 30 fms.—its size varies from 1 to 2 ft. wide, composed of spar, gossan, and yellow ore, and underlaying north from 14 to 2 ft. In one fathom; this has been considered a very promising lode by all that have seen it, but it could not be intersected until a larger engine was erected—for want of this our progress has been retarded these last 4 years, which has caused us to work away the greater part of our ore ground above the bottom levels without having been able to do but little towards discovering more, consequently our samplings have fallen back. We have now, as you are aware, an engine 66-inch cylinder, which is of sufficient power to prove the mine effectually; this engine commenced working the latter end of January, 1846—since then we have had to alter some of the pit-work in Henwood's shaft, connect that shaft from new engine to that shaft, (as the new engine-shaft is only 50 below adit). We are sinking Henwood's shaft below the 70, and shall continue to do so as fast as possible; much of our success depends on this, because, from the approximation of the lodes, every 6 ft. in depth brings the Slide and Mine-park lodes 4 ft. nearer each other; and John's and Tregellas', being between these lodes, will of course also form a junction, and as the mine deepens the cross-cuts will shorten accordingly. There is every reason to expect, that these parallel lodes will prove so productive as the Slide-park lode, on which from 60,000 to 70,000*l.* worth of ore have been returned. Judging from the locality of the mine, (which is near the granite) the number of lodes and their approximation to each other, there can be but little doubt of a favourable result, if the mine be effectually proved. This is my opinion, and I believe of every practical man that has seen the mine.

The mine is now in full working order; and the workings on the lode at the 60 and 70 fm. levels being in ore, and none being yet removed from the back of the 70, the returns will, doubtless, gradually increase. The other lodes cut being also of a promising character, and containing ore, may be expected to contribute to the ticketings. If to these circumstances be added the consideration of the fact, that it would have been utterly impossible to have continued the mine to the present time without a large engine being erected, the change will appear most advantageous.

The statement of accounts will now be read, and, whilst the directors regret to observe that there is an increase in the liabilities over what was last submitted to you, they wish to assure you, that the strictest attention has been given to economy; and, as will be seen, a large additional value is given to the machinery and materials on the mine. The directors have further to mention, that, with a trifling exception, the charges consequent on the important work now completed, are charged in the accounts to this day—so that the current cost of the mine will subsequently appear, or with some comparatively small charges for proposed alterations in one of the engines, by converting it to a whim and stamping engine. It will be seen also, that credit is not given for some amounts, which must be in part estimated. The returns for some time past have been small, from the circumstances mentioned by Capt. Williams; and the water, previous to working the engine, having filled the deeper levels, the balance against the mine has been also unavoidably increased by these causes. The mine costs had been—

1845—May .....	£555 0 9	1845—October .....	£741 13 6
June .....	610 11 11	November .....	701 14 8
July .....	551 5 0	December .....	793 5 4
August .....	630 4 0	1846—January .....	1004 9 3
September .....	696 15 3	February .....	1007 6 6

Total mine costs .....

The cost of new work, engine, &c., during the past year, has been about 3900*l.*, of which not less than 2600*l.* have been expended in the engine, pitwork, and other substantial materials. The directors have now to propose for your consideration an immediate call of 10s. per share. It will be seen by the accounts, that the number of shares which have met the third instalment is 3389; to which must be added the re-issued shares, 1000—making together 4389 shares; and as the company purports to be divided into 5000 shares, it will be also for your consideration whether the shares should not be increased to that number—the amount at which they shall be issued, and the mode of doing so, to be determined by you. Prior to this, however, it will be necessary for this meeting to make a declaration of the forfeiture of all shares on which the third, and any prior instalments, have not been paid. The directors are glad to announce, that they have succeeded in obtaining a reduction of the dues for the next five years, from 1-15th to 1-20th, from most of the lords—viz., from Messrs. Edward and Bennett Johns, on three-fourths of Tretoil; and from Messrs. Thomas, Jane and Brothers, on Cierhill, one of the setts of Estrel.

To liabilities, as stated at last meeting, 25th June, 1845 .....

Additional ditto, not then included .....

Mine cost to end of February, and sundries .....

Total .....

By balance at bankers, &c., 25th June .....

Copper ore and carriage .....

Materials sold .....

Instalments and re-issued shares .....

Leaving a balance against the company of .....

There are some amounts to receive, which will appear as credits, on being realised in cash—viz., for copper ore sold 2d April, instalments, and for materials and steam-engine on sale—together about 998*l.*; making the difference against the company a little more than 2000*l.*

The CHAIRMAN observed, that he was highly pleased to notice the improvements making at the mine, which, in his opinion, would eventually become a profitable undertaking to the shareholders.—Mr. R. THOMAS said, that it was well known to many of the gentlemen present, that through him more than 2000 shares had changed hands, and arrears of instalments obtained by such transfers, the company being much strengthened thereby: he had always exerted himself to the utmost in his power, in forwarding the interests of the company.—A SHAREHOLDER inquired the estimated value of their stock at the mine?—The CHAIRMAN replied, that it was about 4000*l.* or more; they had increased their property between 2500*l.* to 2600*l.*—In answer to another observation, Mr. R. THOMAS said, that he might safely state that no calls were actually owing, as they would be settled before this month was out—the parties having had notice given them, one who was in the West Indies, had not yet had time to reply.—The CHAIRMAN remarked that, on the whole, he never knew a mine better managed than this.—A SHAREHOLDER observed, that they had at present 500 shares at their disposal, which were well worth 35s. each in the market; he had even seen some sold at 37s.—Mr. NIXON made a comparison between the present position of the mine, and what it presented last year; it was then considered by many as worthless. Two of the parallel lodes had been cut, and operations proceeding to extend thereon, as well as to intersect the remainder, and as the Old, or Slide Park, lode was also opening productively at the bottom level, he hoped very shortly their workings would be beneficial. For four years the mine had worked without any beneficial result, in consequence of inefficient machinery, and the ore in the upper levels was consequently worked out; whilst, from the inability to sink the mine, fresh ore ground could not be opened. Now the case was very different, they were provided with adequate steam power, and all the heavy charges being incurred, the cost which, for three or four months past, had been about 1000*l.* per month, would from this time, probably, not much exceed 400*l.*—Mr. HEALL said, that if the mine was to be carried on with spirit and advantage to the shareholders, money ought not to be a consideration, as it now exhibited every prospect of success.—The CHAIRMAN remarked that the chief object they had in view, was to make the mine as profitable as possible. He had not been down it, but he should very shortly examine it with the mining captain, and at the next meeting he should be enabled to give a full account of the result.—The passing of the report was moved by Mr. HEALL, and seconded by Mr. MACKAY, and adopted unanimously.

Mr. HERAPATH considered that all shares on which calls were due, ought to be forfeited.—A SHAREHOLDER remarked, that they well knew several holders

would not come forward and pay their calls, until they were certain of an improvement in the mine, when, should it prove as they all anticipated, they would soon make their appearance. There had been five calls made, and he would propose that those who had not paid their fourth and fifth instalments, should have their shares forfeited. He understood that there were about 500 bad shares out, on which two or three calls were owing, and he presumed that the present application for a reissue was to cover those shares, as the number of consolidated shares was, by the constitution of the company, fixed at 5000.—The SECRETARY said, that there were 519 shares to be reissued, so as to make up the full complement of 5000. The next general meeting will be held in August.—Mr. FIELD and Mr. NIXON contended that all shares not paid up, after due notice had been given to the holders, should be forfeited; but if they were absent from the country, as in the case of one of the shareholders, who was now in the West Indies, they should be reinstated, on full payment being made.—Mr. HEALL was of opinion that they were certainly bound, out of courtesy, to give proper notice, without, however, extending it to too long a period.—It was moved by Mr. FIELD, and seconded by Mr. WATSON, that all shares on which the third call at this time had not been paid, be irrevocably forfeited.—Mr. MACKAY proposed, and Mr. FIELD seconded, that all shares on which the fourth or fifth instalments remain unpaid for 21 days should be forfeited.—It was afterwards proposed and resolved, that the requisite number of shares to make up the 5000, fixed by the constitution of the company, be issued *pro rata*, at 35s. per share; and that the shareholders have the option of taking them up until the 1st of May, after which they would become saleable in the market, though at not less than 35s.—Mr. FIELD moved, and Mr. NIXON seconded, that the call of 10s. be paid on or before the 25th inst.—Mr. KELSEY proposed an amendment, that 5s. be substituted.—Mr. NIXON said, that they were 8000*l.* in debt, and that a call of 5s. would be of no use whatever to carry out the improvements contemplated.—Mr. KELSEY withdrew his amendment, and the original motion was accordingly carried.

Mr. HEALL said, that the company was now in an improving state, and he considered that it would be advisable for them to meet more frequently, any once a quarter. He should not make a motion on the subject at present, but would bring it forward for adoption at their general meeting in August next. He should move that a copy of the report and statement of accounts, with the proceedings of the day, be printed or lithographed, and sent as a circular to all the shareholders—which was carried.—Mr. KELSEY moved, that a vote of thanks be given to the chairman and directors, for the great attention they have shown to the interests of the company, which was seconded by Mr. MACKAY, and passed unanimously.—The chairman and directors returned thanks, when the meeting separated, apparently perfectly satisfied at the progress of the mine.

#### STRAY PARK AND CAMBORNE VEAN MINING COMPANY.

At a general meeting of adventurers, held at the mines, on Friday, the 3d inst., the accounts for January and February were presented—showing balance in favour of adventurers of 1953*l.* 15s. 6*d.*, the produce from sales of copper ores being 2607*l.* 8s. 7*d.*—which having been examined and passed, a dividend of 1*l.* per share was declared. The following report from Captains N. Vivian and J. Richards was read:—"We have inspected, at your request, Stray Park and Camborne Veian Mines, with regard to the mode of working—whether, in our opinion, we could recommend alterations; and what are the present prospects of the mines. Query 1.—We fully concur with the present mode of working, which is in accordance with good practical mining; nor can we fairly withhold a remark on the great spirit you have exhibited beyond your predecessors for the last 40 years. The engine-shaft which you have cut down from surface to the bottom of the mine, more than 200 fms. in depth, from a mere hole to a capacious shaft, on which you have erected a powerful, and quite a first-rate, steam-engine, is in a right situation for commanding the entire concern; and, by virtue of which, the western ground, called Wheal Francis, can be wrought at greater advantage than by any other mode of working. The mine, previous to the present management, had, for a very long period, the appearance of being in Chancery, but now its general aspect might vie with most mines in the neighbourhood. Query 2.—The agents having suggested to us their intention of adding the following tutwork, as soon as preparations now being made are in order—viz.: To rise from the 150 to meet a winze now in course of sinking under the 120, on the south lode, and, when holed, to drive intermediate levels, to sink a winze, or winzes, in the 80 fm. level; to rise in the 70, on the south lode, in one or two places, in search of fresh discoveries in this unbroken, and apparently very valuable, ground; to drive the cross-cut at the 180, to intersect the south lode; to drive a cross-cut northerly, at the 140 fm. level, to cut the Town lode; and, when the 140 is connected with the eastern mine, to extend levels on the course of the lode at the bottom of the mine; and, to aid these objects, forthwith to fix a powerful air-machine in the 150 fm. level, to be worked by the steam-engine. We quite approve of this additional work, which we think ought to be satisfactory to all parties concerned; and, no doubt, when the necessary preparations are made, they will be carried into effect. Query 3.—We consider the prospects of the mine very encouraging, and believe that you will realise considerable returns of ore for a long period. It is quite our opinion, that if the workings be carried out which have been proposed to us by your agents, that you will not only have a profitable mine, but a mine of long standing."

The annexed report, from Captains R. Enstiee and E. Ralph, was also read to the meeting:—"In the winze sinking in the bottom of the 70 fm. level, by four men, at 8*l.* per fm., the lode is 14 in. wide, yielding 2 tons of ore to a fm. In the 80 fm. level driving west, by four men, at 8*l.* 10s. per fm., the lode is 24 ft. wide, yielding 4 tons of ore to a fm. In the winze sinking in the bottom of the 80 fm. level, by four men, at 9*l.* per fm., the lode is 3 ft. wide, yielding 4 tons of ore to a fm. In the 90 fm. level driving west, by 4 men, at 8*l.* per fm., the lode is 18 in. wide, yielding 2½ tons of ore to a fm. In the winze sinking below the 90 fm. level, by four men, at 10*l.* per fm., the lode is 3½ ft. wide, yielding 4 tons of ore to a fm. In 100 fm. level driving west, by four men, at 10*l.* per fm., the lode is 18 in. wide, yielding 2 tons of ore to a fm. In the 110 fm. level driving west, by four men, at 9*l.* per fm., the lode is 18 in. wide, yielding 2 tons of ore to a fm. In the winze sinking below the 110 fm. level, by four men, at 8*l.* per fm., the lode is 3 ft. wide, yielding 3 tons of ore to a fm. In the 120 fm. level driving west, by four men, at 13*l.* per fm., the lode is 1 ft. wide, yielding 1 ton of ore to a fm. In the winze sinking below the 120 fm. level, by four men, at 9*l.* per fm., the lode is 1 ft. wide, yielding half a ton of ore to a fm. In the 140 fm. level driving west, on Stray Park old lode, by two men, at 9*l.* per fm., the lode is 10 in. wide, containing stones of grey ore. In the 150 fm. level driving west, by two men, at 7*l.* 10s. per fm., the lode is 1 foot wide, yielding 1 ton of ore to a fm. In the 150 fm. level driving east, by four men, at 7*l.* per fm., the lode is 4 ft. wide, yielding 4 tons of ore to a fm. In the rise above the back of the 150 fm. level, by four men, at 7*l.* per fm., the lode is 3½ ft. wide, yielding 3 tons of ore to a fm. In the 180 fm. level driving east, by six men, at 12*l.* per fm., the lode still continues in a disordered state, yielding good stones of ore, with favourable indications."

The average monthly gettings of the labourers during six months were—tutworkmen, 2*l.* 8s. 11*d.*; tributaries, 3*l.* 1s. 6*d.* The accounts attached to the report are very explicit, and their clearness and minute detail must prove very satisfactory to the adventurers, as they are creditable to the purser, Mr. Vawdrey.

**NORTH WHEAL ROBERT MINING COMPANY.**—At a recent meeting of adventurers, the accounts, showing balance due to the manager of 34*l.* 6s. 7*d.*, having been examined and allowed, the following report from Capt. John Paul, the manager, was read:—"Since my last report our attention has been principally directed to the great object in view, 'the sinking the engine shaft and exploring the lode at the deepest levels.' On getting the shaft to about 12 fms. deep, we found the water (which was much increased by the floods, and which came principally from about 5 fms. below the surface), very seriously adding to the expense of sinking deeper; we then cut the lode at that level, and have driven about 9 fms. on its course. In the eastern end the lode is about 3 ft. wide, showing much gossan, interspersed with malleable and yellow copper ore, of good quality, producing saving work. In the western end the lode is about 5 ft. wide, and composed of capel, spar, mudiic, malleable and yellow copper ore, saving to dress; with, at times, rich lead and silver ore in the hulk or flooken. This end does not yet extend to the ore ground in the shallow level. In the deep adit I have the pleasure of noticing a very valuable change. In my former report I stated the progressive improvement of the lode since we began. It is now full 4 ft. wide, containing rich yellow copper ore (a parcel of which will be dressed), with every appearance of improvement. We have done but little in the dressing department since our last meeting. Our object in future is almost immediately to recommence sinking the engine-shaft on the course of the lode, to drive the two bottom levels and the deep adit, &c.; and in order to carry this into effect, I recommend a call of 25s. per share be made.—It was then resolved, that the report be received and adopted, and that, in order to carry out the plan proposed, a call of 1*l.* per share be made."

**SOUTH WHEAL MARIA MINING COMPANY.**—A meeting of the managing committee was held at the mine, on the 31st of March—when an engineer was present, to decide on the propriety and practicability of erecting an undershot water-wheel, to be worked by the River Tamar, to pump the water from the engine-shaft; but the expense was estimated to be so great, and the difficulties attending it so many, that the majority of the committee were in favour of a steam-engine, alleging that the prospects of the mine were such as would promise a rich remuneration for the outlay in the most effective machinery. The members of the committee entered fully into every question, for and against, touching the proposed water-wheel, cutting leats, damming the Tamar, its fitness, and as to the best mode of protecting the works from injury by inundations of the said river—at the same time making every calculation before the probable expense of carrying their designs into practice. As of the said liberation, it was proposed and carried, that the question, Wednesday, the whole adventurers for their decision; consequently machinery to be adventurers will take place at the New Inn, on Friday, the 15th of April inst., at 3 p.m., to decide as to the best means to be adopted, and to consider the best means.



**WEST WHEAL PROVIDENCE.**—At a recent meeting of adventurers, the accounts were submitted, showing wages from August to end of Dec. 1844, as 1522 17s. 6d.; from January to end of Dec. 1845, 6832 17s. 7d.; for January last, 1112 12s. 9d.—together, with merchants' bill of 507 7s. 2d., 9782 18s.—Received by tin ore sold, (21 tons 9 cwt.) 1194 13s. 8d.; copper ore, (10 tons) 1094; arsenic, 111 19s. 3d.—together (less dues, 722 15s. 2d.) 12422 17s. 10d.; add balance from former account, 1272 0s. 6d., shows a total of 18692 17s. 10d., and 3901 19s. 10d. as profit; deduct 3842 for dividend of 30s. per share, leaves 61 19s. 10d. now in hand.—The accounts having been examined and allowed, it was resolved, that Mr. Mitchell be paid 307, and Capt. R. Penglass 207, for their past services; that the purser's salary, including clerkship, be 63s. per month; and Capt. R. Penglass be paid 63s. per month.—The mine is reported as looking very well.

**WHEAL LOVELL CONSOLIDATED MINING COMPANY.**—A meeting of adventurers was held at the mine, on the 27th March, at which the accounts were presented—showing, on the totals, balance against the mine of 1059 12s. 1d., while the working cost for 3 months had been 3843 18s. 9d., and the tin money received, 3864 5s. 8d.—loss, 1592 12s. 1d. It was resolved, that the accounts be allowed; the captain's report be received; that the bankers be requested to advance Mr. W. Carne, the purser, a sum not exceeding 1500l.; and that a call of 5d. per share, to meet the third instalment due for the purchase of the mine, be made, payable before the 15th April. The meeting was attended by Messrs. W. Carne, Bickford and Co., J. Bickford, J. Kendall, jun., W. Penberthy, J. Wearne, W. H. Vice (for Cornish and Co.), Francis Johns, T. Julian and Son, Edward C. Carne, and J. Scarce.—The following report, from Captains R. S. Bryant, R. Kendall, and J. James, was read to the meeting:—"In presenting our second report, we have to commence by regretting that it is not in our power to announce great riches. From the state in which the mine was left by the former proprietors, you have been called upon to make considerable advances for new materials; the winter, although not severe, has been marked by constant rain, and when to this is added the scarcity and consequent advance in the price of coals, you will be prepared for a considerable increase in the expenditure in that department. The season of the year in which you became possessors of the property was peculiarly unfavourable to mining operations; still with all these disadvantages, we see no reason to alter the opinion we expressed at your first meeting, that the mine would ultimately become an extensive and remunerative concern. Your recommendation that the eastern engine should be removed, and placed as a drawing engine on the south part of the mine, has been so far complied with, that the stone from the old engine-house has been removed to the spot intended for the erection, and that it will be proceeded in without delay. In the eastern part of the mine, on Capes lode, the 23rd fm. level has been extended 15 fms., and a very tolerable bunch of tin of about 11 fms. in length has been passed over; this level is now connected with the level below (the 34) by a winze, and we hope shortly to be able to set some pitches in this part of the mine; in the western part, on the same lode, little has been done for some years, the ground is hard, but the appearances are of that character as to induce us to recommend that the 50 fm. level be resumed for the purpose of proving the lode at that depth. On the Goble lode, at the 60 fm. level, we have had some very favourable indications, and hope soon to get under the bunches, which proved so productive in the levels above. At Middlework, we have driven 10 fms. through a good lode to a cross-course, which has disordered it for the present, and at the Coinwork, which will eventually be the engine-shaft for the Middlework, we are sinking under the 20 fm. level, and extending west to communicate with the 20 driving east from Middlework, through which, when completed, it is intended to take up the water from that part of the mine."—Annexed to the report, was a statement, showing that the quantity of ground, opened since the last meeting, was 171 fms. 1 ft.

**WHEAL CARPENTER MINING COMPANY.**—A meeting of the adventurers was held at Tavistock on Monday, the 6th inst., in accordance with notice convening the same—J. G. MITCHELL, Esq. (purser of Wheal Grace), chairman.—The captain's report was read, from which it appeared that, on the Thursday previous, a very promising lode was cut on that part of the set called Derriton. It was unanimously resolved, that the purser of Wheal Grace be requested to inform the agents of Wheal Carpenter the day appointed for the next meeting of Wheal Grace adventurers, so as to enable the officers of Wheal Carpenter to attend, and endeavour to arrange for the driving of an adit upon the course of Wheal Grace lode to the boundary of Wheal Carpenter set; and that this meeting be adjourned until the result of the interview be known, and that operations be prosecuted on the newly-discovered lode.—[Wheal Grace is situated immediately east of Wheal Carpenter; a very productive lode has been worked on as deep as the water will allow, from whence about 30 tons of lead has been raised, and a quantity of excellent copper ore. A steam-engine is also in course of erection. Wheal Carpenter may, therefore, be deemed a very excellent speculation, as the lode proved productive in Wheal Concord, adjoining Wheal Grace on the east.]

**WHEAL ST. CLEER MINING COMPANY.**—At a meeting of adventurers, held at the purser's office, Octagon, Plymouth, on the 6th inst.—PONSFORD FISHER, Esq., in the chair.—The accounts, showing balance against the mine of 1077 12s. 1d., were examined and passed; the captain's report received; a call of 4d. per share made; and resolved, "that the purchase of the materials of the West Caradon Consols, and any further arrangement as to set and dues, be left to the purser, Mr. Atkinson, and Mr. Fisher, and that they be authorised to purchase the same, or otherwise."—The following report from Capt. Theophilus Mitchell was read to the meeting:—"In reporting the progress of the working of this mine, I have to state that our engine-shaft is down 45 fms. 5 ft. At the 30 fm. level we extended south, and intersected the main lode 10 fms. from the shaft, which was large and strong, on which we extended about 16 fms. west. We found some tin in it near the cross-drift, but not of much value; and, being in decomposed granite, I thought it prudent to suspend the driving on it. We also extended a level north, and intersected Swinton's lode about 6 fms. from the shaft, where we met with some good stones of tin in the gossan, but it did not extend away either east or west; on this lode, we have driven between 7 and 8 fms. west, and about the same distance east, which continues large, composed of gossan, spar, iron, &c., but, being in decomposed granite, I have also discontinued the driving of both these levels. At the 45 fm. level we have extended north from the shaft about 11 fms., and have got into Swinton's lode about 3 ft.; but, being still in decomposed granite, the appearance of the lode is much the same as at the 30, nor can we reasonably expect to find any material alteration, till we get into fixed rock; south we have extended about 8 fms. Had the main lode kept its regular course, we should have met it, as our level is about 4 fms. beyond where it would have intersected it. In this level we have fixed granite rock, through which are running east and west strata containing copper, fluor spar, mudiic, peach, &c. Whether the lode has changed its underlie, and taken a more vertical course, by meeting with the hard rock, or split up in strings and branches, remains a problem to be solved: if the latter, it may probably form again in depth. Having then obtained one object of importance—that is, having got into fixed granite rock congenial for copper—I should recommend sinking the engine-shaft another lift, and continue the south cross-drift at the 45 fm. level, suspending for the time everything in decomposed granite."—"Since writing the above, we have seen a little more of Swinton's lode at the 45; it is retaining a strong gossan. It is my opinion, as well as the opinion of Capt. Nance, that, when this lode gets into fixed rock, it will make a good copper lode. Reasoning from analogy, many instances might be brought to support this opinion.—[We understand, that there are two lodes to the south of the present workings, and three to the north of do., that have not been seen under 5 fms. deep.]

**GENERAL MINING COMPANY FOR IRELAND.**—We understand that the directors have commenced active operations on the Shallee Lead Mine, near Limerick, which was recently purchased by them from Mr. McGuire.

**SOUTH CARADON.**—A dividend of 102 per share for two months' profits, was paid here on the 31st ult., leaving an increased balance in hand after paying for the new engine, engine-house, &c. The 100 fm. level west is looking well.

**WHEAL TAVY.**—The adventurers in this mine, which is situated on the banks of the river from which it derives its name, held their usual bi-monthly meeting, at the Prince George Inn, Stonehouse, on Tuesday last.—Capt. ATKINSON presided.—A very satisfactory report of the state of the working of the mine, from Capt. Cooke, was read to the meeting, and it was stated that the ore now at grass would soon be sent into the market. A managing committee of seven, mostly practical men, was then appointed, with full powers, in conjunction with the agents, to work the mine in the way most conducive to the interests of the shareholders. The prospects of the mine were considered by the agents to be exceedingly good.—*Plymouth Journal.*

**BLENKINSP COLLIERY.**—The Blenkinsop Colliery has recommenced work; and a train of 26 waggons arrived here on Wednesday with coals for shipment to Ireland. It is understood that the coals will be supplied for export only—for a time at least.—*Carlisle Journal.*

**COAL AT PEEL, ISLE OF MAN.**—The search for this indispensable article of fuel has this week proved successful. We have seen a good specimen of coal already procured in that neighbourhood; and there is, therefore, every prospect of success, and, consequently, profits to the speculators.—*Manchester Sun.*

**WORKINGTON COLLIERY.**—The wives of the workmen were regaled at the immense planning gallery, New Yard, with tea, &c., and, we understand, that next week the estimable proprietor proposes treating the men employed by him at the above colliery with a dinner at the Assembly Room, and to present them with a new suit of fannel, when it is expected between 300 and 350 will be present.—*Whitehaven Herald.*

**RAILWAY TRAFFIC.**—From our official returns it appears that the amount of traffic on the Great Western, on nearly 1,800 miles of railway, was 124,073, this accounted for 1,240,151 for the conveyance of passengers only, 38,2612 for the carriage of goods, and a remainder of 81,2996 for passengers and goods together, not respectively apportioned, being an increase over the corresponding week of last year of 24,3571.—*Railway Chronicle.*

## Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning, Twelve o'clock.	
Bank Stock, 7 per Cent., 206	Dutch, 24 per Cent., 59
3 per Cent. Reduced Ann., 95	Brazilian, 5 per Cent., 81
3 per Cent. Consol. Ann., 96	Cuba Bonds, 6 per Cent., —
3 per Cent. Ann., 97	Chilian, 6 per Cent., 96
Long Annuities, 103 3-16	Colombian, 6 per Cent., —
India Stock, 104 per Cent., 260	Mexican, 5 per Cent., 32
3 per Cent. Consols for Acc., 96	Spanish, 5 per Cent., 24
Exchequer Bills, 10000, 29 8 pm	Portuguese, 5 per Cent., 81
Belgian Bonds, 44 per Cent., 99	Russian, 5 per Cent., 109

**MINES.**—The business done in mining shares during the week has not been so extensive a nature as to require a detailed statement; many shares in Copiapo, St. John del Rey, United Mexican, Imperial Brazilian, Mocabaas and Cocas, and a few others, have changed hands; whilst in our home mines we may notice Stray Park, Callington, West Caradon, Condurrow, Chypraze, Mary Anne, East Tamar, Teigh, Herodafot, West Wheal Maria, South Maria, Lamerhoo, Wheal Walter, West Basset, West Wheal Sheppard, &c.

**RAILWAYS.**—There have been very few transactions entered into during the week; the share market has, however, somewhat recovered its extreme depression, and well established lines maintain their price. Foreign shares have also slightly improved. The consideration of the various groups now before the different committees of the House of Commons will be resumed after the Easter holidays; there is plenty of work for the Members as well as lawyers, and it is very doubtful if they will be able to get through the whole of them this session, in consequence of the paltry and vexatious opposition that is made by interested parties against the passing of many of the lines. The railway public is indebted to Mr. Labouchere for extracting, on Wednesday night, from Sir Robert Peel an intimation of the course by which he proposes to place them in possession of the general outline of the plan intended by Government for enabling a majority of scripholders to obtain a dissolution of the companies by petition. The more that this matter is canvassed, the stronger the opinion becomes, that the Government scheme is totally inadequate to meet the crisis, and that it will be difficult, if not, in many instances, impossible, to carry it out in practice. We shall refer again to this important subject, when it is before the consideration of the House.

**RAILWAY MEETINGS.**—The railway meetings during the week have been rather numerous.—On Monday, a special meeting of the proprietors of the Manchester and Birmingham, was held at Birmingham, for the purpose of authorising the directors to proceed with bills now before the House, for lines from Newtown Montgomery to Crewe, from Calverley to Wolverhampton, from Shrewsbury to Stafford, a railway from Cheddle to Amburgeat, and from Manchester to Hyde, which was carried unanimously.—A special meeting of the Great Leicester and Munster was held at the London Tavern, on Tuesday last, for the purpose of approving of a bill for extending and altering some of the provisions of the Acts relating to the Great Leicester and Munster Railway, and to extend the line to Clonmel; and a bill for making a railway from Wexford to Carlow, as far as regards the amalgamation with the Great Leicester and Munster Company; adopted.—On Tuesday, a meeting of the subscribers and scripholders in the British and Irish Union Railway (which was proposed to run from the town of Dumfries to the harbour of Portpatrick), was held at Edinburgh, for the purpose of winding up the undertaking, when it was agreed that a general meeting of the shareholders should be called.—A special general meeting of the Eastern Counties was held on Wednesday, at their termini, to repeal certain clauses in their branch lines (Mr. Hudson, M.P., in the chair), which were carried. The chairman then stated, he was glad to announce that the traffic was now 74452, which showed a large increase, and he trusted that when their branch lines were opened, the shareholders would have 10,000l. per week.—An extraordinary meeting of the shareholders of the Chester and Holyhead was held on Wednesday, at their office, Moorgate-street, to ratify the terms entered into with her Majesty's Government, for the immediate formation of a harbour of refuge and railway pier at Holyhead.—W. R. Collett, Esq., M.P., in the chair. He announced that for every 762 advanced by Government, the company would advance 252, the harbour to be completed in five years. They were now in communication with Government, as were all the railways, as regarded the laying down of the electric telegraph, the bill for which was at present in abeyance. Under any circumstances whatever, the telegraph would be laid down. If the undertaking was accomplished, there would be most successful results.—A meeting of the shareholders of the York and Lancaster was held on Thursday, at Charing-cross, for the purpose of winding up their affairs, and the withdrawal of the project, when the resolutions to that effect were adopted.—A special meeting of the Lynn and Ely met at the London Tavern, on Thursday, for the purpose of the drafts of certain bills before Parliament might be submitted to the shareholders for their approval, which were adopted.—A special meeting of the Ely and Huntingdon was also held at the same tavern, when the shareholders adopted the proposal of a bill to empower the Ely and Huntingdon Company to construct a railway from Bampton to Bedford.—A numerous meeting of the Great Luxembourg Company was held on Thursday, at the George and Vulture Tavern, when the chairman entered very fully into the promising prospects of the company, and that at a future meeting, on the reception of information he expected from Belgium, he would lay it before them.—A general meeting of the Dutch-Rhenish Company was held at the London Tavern—W. Chaplin, Esq., in the chair. The report was highly satisfactory, as to the progress making, and the results that might be expected from the undertaking, as there is a very extensive traffic in Holland. A vote of thanks was passed to the directors, and the administration at Amsterdam.

The South-Eastern Company have fixed Monday for the opening of the Ramsgate line, on which occasion the magistrates and gentry of the town and district will be entertained with a sumptuous dinner by the directors. Extensive preparations are in progress to celebrate the event, and it is expected that the company from London will reach Ramsgate at two o'clock.

**MESSRS. LAMOND'S SALES.**—TUESDAY.—Austrian Mining Company (61 pl.), 21 10s.; North Staffordshire, Churnet, and Potteries (21 2s.), 32 19s.; Orleans, Tours, and Bordeaux (62), 117 9s.; London and Manchester—Remington's (31 15s.), 19s.; Manchester, Buxton, and Matlock (21 2s.), 21 6s. 6d.; Eastern Counties—York Extension (10s.), 11 2s.; East Indian (5s.), 8s.; London and Manchester—Rastrick's (51 5s.), 31 8s. 6d.; Oxford, Worcester, and Wolverhampton (121 10s.), 81 8s.; North British (201), 241 4s.; Manchester and Leeds—Sixteenth (61 5s.), 81 10s.

Yesterday being Good Friday the sale will take place this day, at the usual hour.

**IRISH STOCKS, RAILWAY SHARES, &c.**—3 per Cent. Consols, 95 1/4; 24 per Cent. Stock, 97 1/2; City Debentures, 86 1/2; Dublin and Kingston Railway Debentures, 6 per Cent., —; Bank Stock, 203 1/2; Belfast and County Down Railway, 1; Great County Down, Belfast, Newry, 1 1/2; Great Southern and Western, 21 1/2; Irish Great Western (Dublin to Galway), 1 1/2; Dublin & Belfast Junction, 4 1/2; Dublin & Drogheda, —; Dublin, Belfast, and Coleraine Junction, 1 1/2; Dublin and Sandymount, 1 1/2; Irish North Midland, 1 1/2; Killarney Junction, 1 1/2; Newry, Warrenpoint, and Rostrevor, 2 1/2; Dundalk and Enniskillen, —; Dublin and Kingston, —; Mining Company of Ireland, 12 1/2; Wicklow Copper Mine, 16 1/2; Hibernian Bank, 29 1/2.

**WEST INDIES AND MEXICO.**—The Royal West India Mail packet, the *Acova*, arrived at Southampton on Thursday evening, and landed the Mexican and West India mails. The dates are—Tampico, Feb. 25th; Vera Cruz, March 2d; Havannah, 10th; Honduras, 22d; Jamaica, 11th; Charchagena, Feb. 28; Demerara, March 7; Trinidad, 8th; Barbadoes, 18th; Grenada, 14th; St. Thomas, 18th; La Guayra, 7th; and Bermuda, 24th.—The *Acova* brought home 55 passengers and 12 invalid seamen; and on freight \$2,014,085, 1462 British coin, 281 lbs. platina, 38 serons indigo, 99 serons cochineal, and 750,000 cigars.

**OUR MERCANTILE MARINE.**—Mr. Wawn, M.P. for South Shields, has obtained a Parliamentary return, which shows the following among other facts—

England..	6216	182,429	10,952	2,093,400	357	337
Scotland..	1294	38,114	2,187	434,515	30	109
Ireland ..	1004	28,312	1,056	178,518	8	71

SAILING VESSELS.			STEAM VESSELS.		
	Inward.	Outward.	Inward.	Outward.	
England ..	109,570	122,763	10,358	10,253	
Scotland ..	19,680	19,758	2,880	2,862	
Ireland ..	17,939	10,564	3,653	3,797	

788 sailing vessels and 65 steamers were built and registered in 1845; 534 sailing vessels and 5 steamers wrecked; 81 sailing vessels and 19 steamers broken up.

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## COAL MARKET, LONDON.

**PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.**  
**MONDAY.**—Carr's Hartley 15—Buddle's West Hartley 15—Gateshead Park 13—Holywell Main 15—New Tanfield 13—Oakfield Main 11—Original Tanfield 12—6—Ord's Redheugh 12—6—Smith's Pontop 12—6—Tanfield Moor 15—6—Townley 13—6—West Hartley 15—Wylam 14—Wall's End Hilda 14—6—Eden Main 15—6—Braddyl's Hetta 16—9—Hawthill 17—3—Hetton 16—9—Lambton 16—3—Pemberton 14—6—Russell's Hetta 16 to 16—3—Adelaide Tees 16—3—Seymour Tees 15—3—South Durham 14—6—Tees 16—3—Tees Hetta 19—6—Cowan Hartley 15—Hartley 14—Llangennech 23—Sidney's Hartley 15—Ships at market, 34; sold, 39; unsold, 15.

**WEDNESDAY.**—Carr's Hartley 16—Holywell Main 15—Oakfield Main 11—Ord's Redheugh 12—6—Tanfield Moor 15—3—Townley 13—6—Wylam 14—Eden Main 15—Hartley 14—6—Llangennech 23—Sidney's Hartley 16—Wall's End Bewicke and Co. 15—3—Gosforth 15—3—Hebburn 14—6—Killingworth 14—9—Northumberland 15—Wharmcliffe 15—Braddyl's Hetta 16—9 to 17—East Hetta 15—Hawthill 17—6—Hetton 17—Lambton 16—3—Pemberton 14—6—Russell's Hetta 16—3 to 16—Stewart's 17 to 17—3—Hough Hall 16—3—Adelaide Tees 16—3—Seymour Tees 15—3—South Durham 15—Tees 16—6—West Tees 14—Ships at market, 68; sold, 57; unsold, 11.

**THAMES TUNNEL COMPANY.**  
 The number of passengers who passed through the Tunnel in the week ending April 4, was 24,620; amount of money, £102 11s. 8d.

**EXPORTATION OF THE PRECIOUS METALS.**—The following are the official returns of the exports of gold and silver from the port of London for the last week:—Silver coin to Rotterdam, 22,000 ounces. Silver bars to Rotterdam, 60,000. Silver to Sidney, £20.

## RAILWAY SHARE LIST.

RAILWAYS.	Paid	Closing pr. last week.	Closing pr.
Aberdeen .....	£10	24	23
Amber, Nottingham, Boston, and Erewash Junction .....	24	14	14
Armagh, Coleraine, and Portrush—501 shares .....	1	1	1
Birmingham and Gloucester—1001 shares .....	100	135	124
Birmingham and Oxford Junction—501 shares .....	1	1	1
Bristol and Exeter—1001 shares .....	70	87	84
Bristol and Gloucester—501 per share .....	30	30	47
Caledonian—501 per share .....	5	7	7
Cambridge and Lincoln—251 shares .....	1	1	1
Chesham and Bury .....	1	1	1
Chester and Holyhead—501 shares .....	15	17	17
Cork and Killarney—501 shares .....	1	1	1
Cork and Waterford—251 shares .....	1	1	1
Cornwall—501 shares .....	1	1	1
Derby, Uttoxeter, and Stafford .....	24	24	24
Direct Northern—501 shares .....	24	14	14
Direct Manchester (Remington's)—201 shares .....	24	24	24
Ditto Rastrick's .....	54	38	39
Dublin and Belfast Junction—501 shares .....	10	4	4
Dublin, Belfast, and Coleraine—501 shares .....	24	24	24
Dublin and Galway—501 shares .....	4	1	1
Dundalk and Enniskillen—501 shares .....	24	21	21
Eastern Counties—251 shares .....	14	21	21
East Lincolnshire .....	50	79	79
Edinburgh and Glasgow—501 shares .....	3	24	24
Edinburgh and Perth .....	24	24	24
Exeter, Yeovil, and Dorchester—501 shares .....	24	1	1
Goole and Doncaster—201 shares .....	42	42	42
Grand Junction—1001 shares .....	100	100	100
Grand Union (Nottingham and Lynn) .....	1	1	1
Great Grimsby and Sheffield—501 shares .....	15	15	15
Great Northern and Western (Ireland)—501 shares .....	100	210	204
Great North of England—1001 shares .....	80	145	145
Great Western—1001 shares .....	5	4	4
Gulford, Farnham, and Portsmouth—501 shares .....	50	101	101
Hull and Selby—501 shares .....	24	24	24
Isle of Axholme .....	24	24	24
Lancaster and Carlisle—501 shares .....	24	24	24
Leicester and Birmingham—201 shares .....	24	24	24
Leicester and Bedford—201 shares .....	24	24	24
Leicester and Tamworth—201 shares .....	42	42	42
Liverpool and Leeds Direct—501 shares .....	24	24	24
Liverpool, Manchester, and Newcastle Junction .....	18	18	18
London and Birmingham .....	220	222	222
London and Birmingham Extension—251 shares .....	1	1	1
London and Brighton—501 shares .....	Av. 167 13s 4d	72	72
London and Croydon .....	50	62	62
London and Greenwich .....	Av. 131 15s 9d	9	9
London and South Western .....	Av. 41 10s 10d	76	76
London and York—501 shares .....	24	24	24
London, Warwick, and Kidderminster—501 shares .....	24	14	14
London, Salisbury, and Yeovil—501 shares .....	24	1	1
Londonderry and Coleraine—501 shares .....	24	4	4
Londonderry and Enniskillen—501 shares .....	5	5	5
Lynn and Ely—251 shares .....	5	5	5
Lynn and Dereham—251 shares .....	5	5	5
Manchester and Leeds—1001 shares .....	82	120	120
Manchester and Birmingham—401 shares .....	40	75	75
Manchester, Buxton, and Matlock—201 shares .....	42	42	42
Manchester and Southampton .....	2	1	1
Midland .....	Stock	144	143
Ditto Birmingham and Derby .....	Stock	—	114
Midland Great Western (Irish)—501 shares .....	24	24	24
Newcastle and Berwick—251 shares .....	10	17	18
Newcastle and Carlisle—1001 shares .....	100	17	18
Newcastle and Darlington Junction—251 shares .....	25	43	43
Ditto New (Branding)—251 shares .....	20	42	42
Newport and Abergavenny .....	24	24	24
Newry and Enniskillen—501 shares .....	24	24	24
Newark, Sheffield, and Boston—251 shares .....	24	24	24
North British—251 shares .....	17	24	23
North Devon .....	45	45	45
Northern and Eastern—501 shares .....	45	45	45
North Kent and Direct Dover—501 shares .....	24	1	1
North Staffordshire—201 shares .....	42	13 pm.	2
North Wales—251 shares .....	34	22	22
Norwich and Brandon—201 shares .....	18	23	22
Northampton, Banbury, and Cheltenham .....	2	2	2
Oxford, Worcester, and Wolverhampton .....	24	9	8
Perth and Arbroath—201 shares .....	24	1	1
Portsmouth Direct—501 shares .....	24	1	1
Preston and Wyre—501 shares .....	50	33	33
Richmond—201 shares .....	5	15	75
Rugby and Huntingdon—201 shares .....	2	2	2
Scottish Central—251 shares .....	7	13	13
Scottish Midland—251 shares .....	6	6	6
Sheffield and Manchester—1001 shares .....	100	1	1
Shrewsbury and Birmingham .....	24	1	1
Somersetshire Midland .....	24	24	24
South Devon—501 shares .....	24	24	24
South Eastern and Dover .....	Av. 33 2s 4d	34	35
South Midland—201 shares .....	42	42	42
South Wales—501 shares .....	6	2	2
Staines and Richmond—201 shares .....	1	1	1
Trent Valley—201 shares .....	5	27	27
Trent Valley and Holyhead Junction—201 shares .....	24	24	24
Valley of Seath .....	2	1	1
Waterford and Kilkenny—201 shares .....	3	1	1
Welsh Midland .....	24	1	1
Wilt, Somerset, and Weymouth—501 shares .....	24	1	1
Yarmouth and Norwich—201 shares .....	20	24	24
York and Carlisle .....	24	1	1
York and North Midland—501 shares .....	50	96	96
Ditto Selby—501 shares .....	30	72	71

## FOREIGN RAILWAYS.

Boulogne and Amiens—201 shares	10	12	11
Bordeaux and Toulouse and Cotte (Mackenzie)—201 shares	2	—	13
Bordeaux, Toulouse, and Cotte (Espacele)—201 shares	2	21	24
Central of Spain—201 shares	2	—	—
Dutch Borneo—201 shares	5	5	5
East Indian	5	—	15
Great Northern of France (constituted)	5	15	15
Great Western Bengal	3	—	8
Great Western Canada—224 shares	4	4	—
Jamaica and South Midland Junction—201 shares	1	—	—
Jamaica North Midland	4	—	—
Levalloine and Jemappé—201 shares	4	—	16
Lyons and Avignon—201 shares	2	2	2
Luxembourg	4	13	16
Namur and Liege—201 shares	4	24	16
Orleans and Vierzon—201 shares	10	—	16
Orleans and Bordeaux—201 shares	10	13	16
Paris and St. Quentin—201 per share	2	—	—
Paris and Orleans—201 shares	20	—	48
Paris and Rouen—201 shares	20	41	40
Rouen and Havre—201 shares	18	—	29
Sambre and Meuse—201 shares	—	—	2
Strasbourg and Bâle—141 shares	14	—	—
West Flinders	4	24	2







aid of the bereaved family? Certainly not; it is the fine to the Crown—and while the widow and the orphan are thrust into the Union, the Crown enjoys the benefit arising from such decision. We are aware that, in some cases, the Lord of the Manor puts forth his claim; but such is a mere transfer of the deadland from the Queen to the Manorial Lord, without benefitting the unfortunate family.

Having said thus much as to the effect of deadlands, we proceed to the main point—and to which we invite the attention not only of Lord Campbell, but the coalowners, and those interested in collieries or mines. If that the Legislature would pass a law whereby protection—so far as such can be afforded by any human foresight—was given to the collier and miner, then we consider that any accident arising, whereby loss of life might be attendant, he should be held harmless; but to be able to determine this, it behoves the Legislature to appoint parties who shall, from time to time, inspect and report on the mines and collieries, who shall furnish to a board in London plans of the several workings, and who shall be held responsible for any accident which may occur.

We do not, of course, for one moment contemplate in such arrangements those outpourings of gaseous vapours, or damp, which are known to have caused so many fatal accidents; but we do consider that a guard should be put on the coalowners, whereby the chance of danger exists, of providing against the fatal effects which may arise, by every means in their power, without regard to pecuniary interest. Safety lamps should be provided—careful and intelligent agents should be appointed, and held responsible for the safety (so far as can be) of the workings; and, as regards the north, one of our first objects would be to place the trap doors, or drifts through which the air passes, ventilating the colliery, under the care of able men, and not children or old men—this is one of the least considered points, but, perhaps, the most important. We have had the opportunity, recently, of consulting parties interested in the north; and, more especially, a gentleman, who, in his duties as coroner, informs us, he has been called upon to sit at times (and his duties have been performed upwards of a quarter of a century), on numerous occasions, when not only tens of lives, but even ten times ten, have been lost from uncontrollable circumstances, attendant on the working of collieries; and while he expresses his opinion, that all care is observed, yet the frequency of accidents justifies us in impressing on the Legislature, the nature of some precautionary course being adopted. In this advertising to the measure introduced by Lord Campbell, we have only, in conclusion, to observe that, while much credit is due to the learned lord, in directing his attention to the widows and orphans bereaved by accidents, whether at surface or underground, we feel that the subject is one which requires much consideration, and which we fear, in these railway times, will be hurried forth with too much speed through the Houses of Parliament, without some notice being taken by those whose interests it is so likely to affect. We, however, await the particulars of the proposed bill, when we shall resume the consideration of the subject.

The annual general meeting of the company styled "the Copper Miners of England" was held at the offices of the company, on Wednesday, the 8th inst., at which the usual dividend of 5 per cent. per annum was declared. From the report submitted, it would appear, that a further increase of capital is contemplated—thus affording, in itself, the most conclusive evidence of the successful results attendant on the operations of the company—it being proposed to issue new (preference) shares, bearing interest ranging up to 7½ per cent.; the present proprietors having the option of subscribing for the new shares. We defer, until next week, the insertion of an abstract of the report—as also the proceedings at the meeting; when we may have occasion to offer some observations on the influx of business requiring such additional capital—while, we trust, the miner, as well as smelter, will benefit by its application.

Considerable excitement has pervaded the public mind, and many have been the opinions expressed by parties interested in railway enterprises, as to the policy of the course announced by Government, relative to the proposed legislative interference with railways. There can be no question but the course intended to be adopted, as explained in the Houses of Parliament, has taken the public by surprise, and that the measure is fraught with evil,—while, from its having been so long delayed, a false confidence has been reposed by the shareholders generally, which is now directed to their prejudice. There can be no question but that, on the assembling of Parliament at an early period of the session, the public were then prepared for some measure being submitted by Government, having for its object the selection of such lines as held out the greatest advantages, whether considered with reference to the interests of the country at large, or the pecuniary advantages arising to the shareholders—the object being to limit the application of capital. It was admitted, admitted, however, on all hands, that a difficulty would arise in arriving at a just conclusion, while the task was at least one of an arduous nature,—and, moreover, was to be deprecated as interfering with individual enterprise, and the direction of capital, which (it was very properly contended) might be equally, if not more beneficially, employed in railway undertakings, and thus facilitating the modes of transit, and encouraging our manufactures, than were the capital of the country applied to foreign loans or foreign railways. It does, we must confess, appear absurd on the very face of the proposed measure, that Parliament should legislate as effects the employment of capital in our own country, while no step is taken to prevent the outlay of capital in foreign railway undertakings. That the French Government better understood their business as to the construction of railways, by securing to the nation certain advantages, and at the same time insuring the several lines being carried out, will be readily admitted; while we cannot but express our apprehensions, that the proposed measure of the Minister is calculated rather to inflict injury than to produce any benefit, except it be, as has been justly observed, to those who are only known as connected with railway scrip by their jobbing transactions, acting on the principle laid down by Sir R. Peel, that it is expedient to buy at the cheapest and sell in the dearest market. If we understand the subject rightly, it is proposed that, in case of a majority of shareholders—that is to say, any number holding a majority of shares—they may, by application to Parliament, arrest the progress of a bill passing through the House,—and that an official organ of the Government shall be nominated, who shall take possession of the funds,—and after satisfying the claims which may exist, shall then meet out to the shareholders their several proportions of the balance which may be found to remain. Let us, then, see how this would act,—and a reference to the daily sales of railway shares at the Hall of Commerce will, we think, at once prove that, not only are they to be purchased at rates far below their intrinsic value, if considered as regards the undertaking itself, but in all cases at prices considerably less than would be realised on the "winding up" of the concern. It stands, then, to reason that, the herd of stags, and others of the canine tribe, will at once purchase up shares at a reduced price, with one object alone in view—the abandonment of the project, no matter the amount expended in bringing it to its present state, the heavy expenses attendant on surveys, solicitors' bills, witnesses' attendance, and Parliamentary fees having been paid, and the division of the funds. We will just take an instance—say, the Direct Manchester lines. Now, the amount paid in by the shareholders (if we mistake not) is nearly 800,000L., divided into 200,000 shares. These shares are selling at 1½ discount, which would be equal to 375,000L.; but we believe it is not meant to be contended, that a sum so vast has been spent in preliminary expenses. Other cases we might cite, where the difference, although not perhaps of so great

an amount, shows a far greater disparity between the amount which must remain in hand, and the market price of the shares—so that, if the measure of the Minister be carried, it is quite clear that the project, however calculated it may be to effect good, may be marred, and thousands—nay, even hundreds of thousands—sacrificed to serve the pecuniary interests of a few, who look to the holding of railway shares, merely with regard to their market value.

We are given to understand, that a deputation of capitalists, and parties interested in railways, have had an interview with Lord Dalhousie, and that it is believed some alteration will take place in the details of the proposed measure, if not in its fundamental principle; while no doubt can exist, but that if attempted to be carried as put forward, a serious injustice will be done to the bona fide holder, and to the country at large. We cannot but recommend parties to be cautious in too hastily arriving at a decision, or foolishly sacrificing their property, from any ill-judged apprehension of results, which it is at the moment impossible to foresee; but to watch cautiously the progress of the measure, and, by communicating with each other as to the best course to be pursued, at once anticipate, by their own acts, and controlling their own funds, the acts of the Minister.

It is with the greatest pleasure we notice the rapid progress that the Royal West India Mail Steam Navigation Company has made within the last few years. Not only the mercantile and mining interest of this country, but that of all our West India islands, the Havana, Cuba, and Mexico, are highly indebted to the spirited enterprise of the directors of what may be justly called one of the finest commercial fleets that England can boast of. The contract, which has been entered into by the Lords Commissioners of Her Majesty's Board of Admiralty with the Pacific Steam Navigation Company, for the conveyance of monthly mails between Panama, Callao, Valparaiso, and the intermediate parts in the Pacific, in connection with the Royal Mail Company's steam ships, running monthly between Jamaica and Chagres from and to Southampton, will be the means of opening a new communication between the Pacific and Europe, via the isthmus of Panama, that will be highly beneficial to the intercourse of the new and old world. Mining speculation is gradually on the increase in South America; but the great drawback to its progress has been the exorbitant charges for conveyance of the ores from the mine to the port of shipment, and in many parts they have scarcely any means of transport, although the earth abounds in rich mineral. The establishing of this steam communication between England and the South Pacific, via the isthmus of Panama, will be the means of opening a wide field to mining enterprise in the republic of Chili, one of the most flourishing, industrious, and tranquil states of South America. The progress and benefits of steam navigation has been duly appreciated in Europe, and will now carry its powerful aid for the development of commercial and mining industry in South America, where, in a few years hence, there is little doubt that railways will be established throughout that rich mineral kingdom, as the project of laying down a railway from the great commercial port of Valparaiso to Santiago has met with the full support of the President and Congress; and, no doubt, will ere long be carried out by an English company, which will lead to further concessions. We cannot do better than refer our readers to the report of the annual general meeting of the Royal Mail Steam Packet Company, held on Thursday, which appears in another part of our Paper, as a proof what commercial enterprise in this country can do, and its just reward, by the general encouragement given to it by the public and commercial men.

Upon consideration, we are disposed to regard the failure of the Devon and Cornwall Central line before the Standing Orders Committee as a public misfortune, and for this reason, apart from every other, that it was a central project. Not that we ever thought it an unexceptionable line—very far from it—it had the full average amount of railway infirmities; but it was a practicable central project—it had obtained patronage and funds—and with the improvements likely to be suggested when it came to be wrought out, it would in the result, we think, have become a better line than on paper it appeared to be: besides that, circumstances had made the Coast line its only actual competitor; and as compared with that contradictory and suicidal project, it was as Hyperion to a Satyr. Considering, therefore, the properties of the last line, and the wants of county, we may consistently say, that we regret the failure of the Central scheme. But it has failed; and the question now returns, with superadded force, upon the judgment of the county—namely, what available alternative remains, and how can the loss be repaired? It was with a view to these circumstances of the district, that a few remarks were inserted in last week's Journal, in which was suggested an incorporation of the Cornwall and the Junction lines, by which a Central and a Plymouth project might be united, and the trading life of the county reinvigorated, by the introduction of two great traffic arteries. It should not be forgotten, that the proposed Junction line would end eastward at Crediton, and westward, insulating with the Plymouth line, about midway between St. Austell and Truro; its length in that case would be so far shortened, as to allow of its completion at an outlay of less than a million sterling; while the estimated cost of the late Central project more than tripled that amount. In every aspect of the case, and when dealing with sums necessarily large, and on that account difficult to get together, the expense of a county line must be a question of the very highest importance, and farther important, as the less the outlay in the construction of a line the lower the cost of transit over it. It is said, the Junction line is to be immediately resurveyed, and the sections retaken with all possible accuracy. The ground, in fact, above St. Austell, is to be gone over foot by foot; and it is confidently expected, that the curves can be so straightened, the gradients eased, and the general character of the works so improved, as to present the public with a line which, whatever it may obtain, will deserve its liberal encouragement and support. The great haste, the absolute hurry, of preparation for the 30th November, in which the line had to be got ready, is, it is suggested, a just extenuation of the faults (be they few or many) which adhered to the sections; when finally deposited. We take it for granted, the public of Cornwall has conclusively made up its mind to the realisation, whatever be the necessary sacrifice and exertion, of a central project. There is no other scheme that meets even their present necessities—not to count the transit wants of the thronging thousands, which, in a few years, will assuredly overspread their narrow continent. We do not, we cannot think so meanly, either of their discernment or their humanity, as to suppose that, being able to bequeath their children the enriching power of a great public work, they will leave them the niggardly entail of a private job—a mischance which would operate, as a permanent drag-chain on the material prosperity of the district.

PRICE OF IRON IN FRANCE.—The last accounts from St. Dizier state, that the stagnation which has prevailed for a long time has caused the forgemasters to lower their prices 16s., and to quote beaten or wrought iron, made by coal, at 15L. 4s. 2d., delivered at St. Dizier. In consequence of this fall, several furnaces and manufacturers have sold off a great portion of their produce. Flattened iron is now selling at 14L. 16s., also deliverable at St. Dizier; the white cast metals are without sellers—they are in demand for the north at 7L. 8s. 4d. On the whole the trade is very flat throughout France, and there is evidently a tendency to a decline in price, as the forgemasters find that railway directors will not enter into large contracts with them, unless they are more reasonable, especially as so strong a competition exists on the part of the iron proprietors of Belgium, to furnish the necessary material to the railway companies now laying down their lines in the northern, eastern, and southern departments in France, who, as a matter of course, will go to the cheapest market for their rails, chairs, sleepers, and all other articles.

MONOPOLY OF THE SALT TRADE IN FRANCE.—Great dissatisfaction exists among the merchants and agriculturists at the royal ordinance, respecting the reduced tax upon salt—not so much against the reduction to 4s. 2d. per 2 cwts., but the annoying formalities they have to undergo by the Excise or Custom-house employés. Supposing an agriculturist presents himself at the salt entrepot, and wishes to purchase 2 cwts. at the reduced duty, the first question put to him is—Have you 1600 lbs. of bran to mix with it? If the party states that he has even more than the quantity required as a farmer, the answer is—If you want the weight you ask for, go and fetch 80 or 100 sacks of bran, or we can let you have them, and then mix 10 lbs. pulverised salt with 10 lbs. water for each sack before us. The farmer very naturally replies—How is it possible; for, if I mix 10 lbs. of water with the bran, it will not keep 48 hours without becoming sour. Then take only 80 lbs. of bran to 10 lbs. of salt, says the official. Let me have the 10 lbs., as you state, mixed, replies the farmer. Oh, no; you must have the order for delivery. So it is in France—this disgraceful monopoly by the Government on so important an article as salt to all classes of the population, is exciting the same feeling as the obnoxious corn laws do in this country. The price of salt to the consumer, including the deduction, is 2s. 1d. per 10 lbs.; and if he requires any large quantity from the Excise depot, he has often to wait two or three days before he can obtain his order. In Prussia, as well as all over the continent, where the same monopoly exists by Government over the production of salt, the authorities mix 8 lbs. of sulphate of soda, 7 lbs. of insoluble matter in water, and 3 lbs. of water, for agricultural purposes; after which the farmer makes use of it, either for his cattle, or manuring his land, as it has become useless for general consumption. This unjust tax is the cause of smuggling being carried on to a very great degree, of British salt, into every part of the continent; whereas, if a free commerce was allowed by the different Governments in its manufacture, it would become not only an extensive branch of industry, but increase greatly the prosperity of mining and agricultural enterprise, salt being one of the finest improvements to the land of the industrious farmer, could he obtain it at a low rate, as well as for his cattle. For the curing of meat and fish it is absolutely necessary, but in consequence of its high price, and the heavy restrictions upon its use, France, Belgium, Holland, and Germany, resort to England for their supplies of both articles, which are a most important branch of our commerce.

PROSSER'S WOODEN RAILWAY.—We are given to understand, that the deputation of the board of directors has proceeded to Ireland, to inspect the operations on the line of railway, to which Mr. Prosser's personal attention has been directed for the past six months; six miles of the patent being in course of laying down: the entire length of the line will be 32 miles. We shall not fail to lay before our readers the result.

#### THE IRON TRADE—QUARTERLY MEETINGS.

WOLVERHAMPTON, APRIL 7.—We are sorry to find that a sudden and unexpected reaction of trade begins to manifest itself in this district. The quarterly meeting of ironmasters, which, according to the usual calendar of local events, should have been held at Walsall to-day, has been postponed till next week. This, we believe, is more the result of a want of proper arrangement, than any desire to gain time before the quarterly prices are determined; but the feeling is very strong now in favour of considering well whether it would not be advisable to agree to a reduction of terms next week, rather than attempt to maintain present rates, when it is so evidently certain that the great reduction in the number of railways projected must, of necessity, bring about a corresponding reduction in the demand for iron, which at present, and for some time past, has greatly exceeded the supply. The more experienced masters counsel reduced rates, and a week's breathing time may lead to their counsel being followed; but the meeting at Birmingham on Thursday will rule this point, as that is the meeting which determines the character of all the others. Nothing can exceed the restless and uneasy state of feeling which now prevails throughout this district on the subject of Sir R. Peel's free-trade measures. Trade, in fact, is almost paralysed by the delay and uncertainty that attend them; and unless they become law soon, there will be a season of great distress and feverishness all over the "black country."

WOLVERHAMPTON, APRIL 8.—The attendance at the meeting held here to-day was good—among those present were Messrs. P. Williams, J. Foster, N. Coleman, H. B. Whitehouse, E. Creswell, W. Earnshaw, J. Barker, J. Hunt, T. Morris, J. Hartland, S. Ponting, and great anxiety was evidently felt as to the present position and prospects of the iron trade. There were a good many orders and offers announced at reduced rates, but none were accepted, and the business done was of a trifling character, at present rates—viz., pig, 4L. 15s. to 5L. 10s.; bar, 10L.; railway iron, 10L. to 11L. per ton. One master, who does a large business, stated that an order, at a reduced rate, was handed to him, which he traced as having gone through twelve different masters, by whom it was refused; but another master stated, that he was aware of the fact that a good many orders at reduced rates were actually in progress of being executed, having been taken nominally at the rates fixed by the last meeting, but with an understanding that a heavy deduction would be made in the shape of discount.

BIRMINGHAM, APRIL 9.—The quarterly meeting, held here to-day, was most numerously attended, there being upwards of 800 of the most influential masters present, representing the mining interests in every part of the kingdom. The business usually transacted at these meetings is the settlement of accounts; entering into contracts and agreements of all kinds connected with the trade; the leasing of mines; the supply of coal, ironstone, and such like materials in the manufacture of iron; the regulation of prices of carriage, and more especially the regulation of prices of iron. From the feverish condition of new railway projects, and the very general stagnation of trade occasioned by the uncertainty of the Ministerial measures being carried through Parliament, this meeting was looked forward to with considerable apprehension, lest prices should rise, but soon after business commenced it became evident, from the number of orders produced, and the calculations, which showed that many heavy contracts have yet a quarter to run, that present prices would be in the meantime maintained. Accordingly a resolution to this effect was come to almost unanimously. This determination on the part of the ironmasters has occasioned a great deal of uneasy feeling amongst the manufacturers of iron goods—the price of the raw material having for some time past almost shut them out of the foreign market, and obliged them to sell at home at ruinous rates. Some idea of the extent to which the price of the raw material has thus affected our iron manufacturers may be formed, when it is stated that the rates at which iron has been sold in this district, as fixed by the quarterly meetings during the last four years—

	BASE.	HOOP.	FIG.
April, 1843	£4 10 to £5 0	£6 0 to £6 10	£3 10 to £4 10
" 1844	7 10 to 8 10	7 0 to 7 10	4 0 to 4 10
" 1845	10 0 to 11 10	11 0 to 12 10	6 5 to 6 10
" 1846	10 0 to 12 0	11 0 to 12 0	5 10 to 6 10

The advance of nearly 300 per cent., which took place between April, 1843, and April, 1846, led to an increase in the rate of wages of from 2s. 6d. to 3s. a day, and in coals about 30 per cent. These high rates have since been continued; so that it is now no easy matter to make a reduction, however willing the masters may be to anticipate a decreased demand when the present railway contracts are fulfilled. The estimate of demand on which the rates now charged were concluded, assumed that 450,000 tons would be required for railway purposes in Great Britain alone within a period of three years. The recent stagnation in the railway world will no doubt materially affect this estimate; and as the iron manufacturers of Belgium, and other continental nations, have been driven to America, where the iron trade has of late become exceedingly extensive, and where they could be able to supply themselves at a much lower figure than that at which they could be supplied here, there is good reason to fear that the exorbitant prices now continued will lose us customers whose orders have long been valued, and on the steadiness and permanency of which much has depended. In April, 1844, the demand from Germany and Russia was unusually large. To-day the foreign orders were comparatively few, there being but two or three heavy railway contracts, and scarcely any foreign merchants were at the meeting. Complaints were freely made that the Scotch masters were forcing sales at reduced rates, and instances were mentioned to show that nothing but the superior character of the Staffordshire iron enabled the Staffordshire masters to compete with the Scotch. The settlement of accounts passed over well, and altogether the meeting was very spirited.

BIRMINGHAM, APRIL 9.—[From the Times.]—The Birmingham meeting of the iron and coalmasters of South Staffordshire and Shropshire, held in the Town-hall to-day, passed off more satisfactorily than was expected. For some weeks past, as might be seen from published reports, the iron trade was understood to be generally depressed; and there appears to be no doubt that, owing to causes which I will shortly explain, such has been the fact. It will be recollected that between two and three years ago the ironmasters of South Staffordshire considered themselves in point of trade and future prospects so distressed, that they appointed a deputation to Sir Robert Peel, requesting that the Right Hon. Baronet would be pleased, in order to afford them relief, to issue any quantity of "paper money." Sir Robert's answer was to the point. He told them that the grand evil of the system which had recently been pursued by the iron trade was "over production." Such threatens to be the consequence of the late extraordinary impetus given to the trade. Present appearances confirm it. It would appear that ever since the opening of the present session of Parliament, and immediately subsequent to the late ironmasters' quarterly meeting, a depression of the trade was first felt. The mania for railways (projected) was then at its height; and the natural consequence was, ironmasters being as much, or more, infected than the rest of the world, that works were put on, wages raised, the price of materials augmented, and throughout the entire district there was, to every appearance, a brilliant prospective prosperity. For time the prospect has been dimmed. The first blow given to the over-speculation in iron was the withdrawal from Parliament of many of those wild railway speculations which had no other effect than to fill the pockets of attorneys, raise the price of the staple manufacturers of Staffordshire, and ruin the shareholders. The present session of Parliament has had the effect of weeding these projects; and, at the same time, of threatening the reduction of the price of iron. To-day there was an evident intention on the part of the ironmasters to keep up the prices of the last quarter; and, indeed, so far as the determination of the large works could sanction, they were successful. Staffordshire bars fetched 10L., while Shropshire pigs were certainly not lower, and, as far as I could learn, as firm as they were in January. There appeared to be a scarcity of them in the market. Staffordshire pigs fetched from 5L. to 5L. 10s. It must be admitted, that the inclination to a decline of prices, which no ironmaster was prepared to gain say, was by many of them accounted for on different grounds to those already stated. The first was the pressure in the money market; and the second was the immense number of works at present in full employment. The number was never exceeded in the memory of man; while at the same time it is said the time and coal works are inadequate to their supply. The Government measure introduced into the two Houses by Sir Robert Peel and Lord Dalhousie has also had a most vital effect upon the trade. The great houses think that ultimately it will prove beneficial, but the small masters, calculating as they have been induced to do, upon immediate consumption, look upon it as injurious. As I have said before in many previous communications upon this subject, the decisions of quarterly meetings are in all seasons to be looked upon as purely arbitrary. They may last for the day, but in all probability before the week is over some needy man may require cash, and the settled prices of Thursday are completely thrown overboard. It is indeed a fact, that during the last quarter many houses of respectable ability have sold iron at 10s. per ton under the price fixed at the meeting in January. It should be mentioned, however, that one house in Birmingham to-day has purchased the whole of the iron it will require for the next quarter at the prices fixed to-day; and that another still more eminent house—one of the largest manufacturing establishments in the kingdom—has during the last few weeks been an extensive buyer. The greatest cloud which has overhung this day's market is the declaration of a large iron house in London.



## PROGRESS OF FRENCH MINING INDUSTRY.

(FROM OUR PARIS CORRESPONDENT.)

Very serious disturbances have taken place in the mining districts of St. Etienne. It appears that an overseer of the mine called *Gogne-petit*, which belongs to the great amalgamated company, had been dismissed for impertinence to his superiors. This occasioned great dissatisfaction to the miners, and accordingly the man was reinstated. He, or some person occupying a similar situation, then promised certain of the workmen, called drawers, that they should have an increase of pay of 2d. or 3d. per day; but the manager of the mine refused to accord any such increase, the company not having ordered it. An appeal to the company drew forth a peremptory refusal. Thereupon, all the men engaged in the mine, whether miners or drawers, left off work, and compelled their companions in other mines to leave off also. The men then assembled in masses, and proceeded to certain acts of violence. Soldiers were called out, and arrested some few of the ringleaders. This exasperated the miners, who threw a volley of stones at the soldiers. The latter in their turn became so irritated, that they levelled their muskets and fired, killing five persons on the spot,—of whom two were married women, one *enccinte*,—and severely wounding several others. It is positively stated, that the soldiers fired without orders from their officers; and such would appear to be the case, from the fact, that the mayor of the place, who was trying to persuade the miners to go home, had not time to withdraw before the firing took place. He escaped by the very miracle, two bullets having passed through the tails of his coat. It appears, most decidedly, that the soldiers were in the wrong in firing; for not only were there no orders to do so, but the formal summonses to disperse, equivalent to our reading the Riot Act, which the law requires, previous to the military being called upon to act, were not made by the authorities. The slaying and wounding of their companions increased the anger of the miners,—but it does not appear, that at that time they proceeded to any very great acts of violence. They, however, stopped the works at all the mines in the basin of St. Etienne; and the consequence was, that several thousand men were wandering about in bands, prepared for any mischief, and ready, on the slightest pretext, to come to blows with the civil and military authorities. Such has since continued to be the state of affairs—all appeals to the miners to return to their work being treated with contempt. The greatest alarm and excitement of course exists throughout the district, but the authorities have collected a formidable military force, distributed on all important points, and ready to act on the slightest notice. In the Rive de Gier district the miners, at the date of the last advice, had not left their work; but considering how the mining population hang together, it was feared that they might do so. The managers of the Firming mines had applied to the authorities for a military force to prevent their men from being compelled to quit work. The opponents of amalgamated companies have attempted to make it appear, that the outbreaks have been occasioned by a reduction of wages—the anticipation of which was one of their greatest arguments against the amalgamation; but the truth is, that the company never endeavoured or threatened to make any reduction whatever; and it is a fact, that the general average of wages is higher at present than it has been for a long time past. I do not think it necessary to refer to the tirades of the opposition newspapers upon these deplorable troubles. A strict investigation will no doubt be made, by the Government, into the conduct of the soldiers; and if, as appears, that conduct be unjustifiable, they must be punished. Meanwhile, we may hope that the miners will soon see the folly of their present proceedings, and return to their work.

If the provincial newspapers can be depended upon, a mine of iron ore, extraordinarily rich, has been discovered in a place named Buttes, in the environs of Nancy. They add, that the vein extends under 600 acres of land, and is about a yard in thickness.

It is very confidently reported that the Rothschilds have obtained possession of nearly all the coal mines in Belgium, especially those of Mons and Charleroi. A French company, of which the same persons are believed to be the chief, though they do not ostensibly appear, is said to have offered to the Belgian Government 8,000,000l. sterling for a long lease of all the railways. The object is, to get a monopoly of the coal mines, and a monopoly of the means of transit, so as to obtain enormous prices for coal in Belgium and France. Rothschild, as the head of the Northern and St. Quentin Railways, already possesses the command of the traffic between Paris and Belgium; if to that he can add the command of transit in Belgium, and, above all, the monopoly of the coal mines, he can, first of all, beat down any and all opposition, and then put such price on his coal as he may think fit. The market will be entirely at his mercy. People in Paris and the neighbourhood are beginning to be alarmed at this gigantic monopoly; for the Government will not have, as it has in the case of the monopoly of the Loire Companies, any means of checking it. The alarm that is felt is perfectly natural; for every day the demand for coal is becoming greater, prices are creeping gradually upwards, and yet the supply is falling short, or, at least, remaining stationary. I know not whether English coalowners are paying any attention to the French market; but, if they are not, I can assure them, that what is passing merits very serious consideration.

Railway companies are beginning to be very seriously alarmed at the present state and future prospects of the iron market. Where are we to get our rails? and, what shall we have to pay for them? are questions that they are asking with great anxiety. I have laid before you more than once an account of the annual production of the French forges; and I have shown you, that the railways now forming have had to wait for months for their rails and chairs. The Northern and Tours lines, for instance, might have been opened long ago, had they not been detained by the inability of the ironmasters to meet their wants. But the commands to the ironmasters last year, and the year before, will be nothing to what they will be in the present and three or four following years. Look at the railways authorised, or about to be authorised, by law. They are the Bordeaux to Cotte, the Rouen to Havre, the Paris to Lyons, the Lyons to Avignon, the Vitry to Gray, the Paris to Strasbourg, the Creil to St. Quentin, the Tours to Bordeaux, the Tours to Nantes, the Paris to Rennes, the Paris to Caen, the Amiens to Boulogne, the Fampoux to Hazebrouck, the Dieppe and Fecamp, and several others—all will have to be completed within three or four years—all must have their rails this year, or the next, or the year after, or the year after that. But where are the rails for these 6000 or 7000 kilometres to come from? Where is all the iron to be had that they will require for *cousinets*, carriages, and other things? The ironmasters in France, with all their ambition, cannot hope to have the privilege of supplying these millions of tons, for they cannot meet the present demand, which is infinitely less. If they can obtain the sanction of the Chambers to the preservation of their present monopoly intact, one-half at least of the new railway laws may be suspended for three years; and even then, the companies must be prepared to buy their rails, &c., as if they were of silver or gold. The Minister of Public Works declared the other day, that the price of iron had increased 40 or 50 per cent. since last year. What will it be by this time next year, if no alteration be made in the tariffs on foreign importations? What by this time three years?

The Minister of Commerce makes known, that he has received information that the Government of Norway will sell 8600 marks of fine Norway silver on the 1st May. Sealed offers are to be sent in on the 30th April, at Christiania. Payment will be accepted, half in one month and half in two.—*Paris, April 7.*

MAP OF THE RAILWAYS IN BELGIUM.—We have before us a lithographed map of all the railways in Belgium, embracing those constructed by the Government—those for which concession has been granted—and, the still larger number, those entered as projects, and now under the consideration of the authorities—which, for minuteness of detail, as a work of reference, and elegance of finish, as one of art, is equal to any railway map we have ever seen from the now prolific lithographic press of this country or France; it is from the geographical establishment of M. Vander Maelin, of Brussels, and does infinite credit to the artists employed. Accompanying the map is a sheet of statistical tabular matter, giving in detail, under the above three heads, in connection with each line, the population, commerce, expected traffic and receipts, estimated capital required, and amount of dividend expected—length, double or single line, inclination of gradients, and situation of stations—names of projectors, and to whom concession is granted—dates of first deposit in department "de Travaux Publics"—when adopted by the Chamber of Deputies and Senate, and of the final passing of the law, authorising the concession, commencement, and completion of each railway—an account of works of art on the lines, with general observations as to branches, canals, and other works and roads in their neighbourhoods. We also notice a table map, by the same author, of the railways of Central Europe, which, for delicacy of finish, and accuracy in detail, appears to us to vie in utility with many publications of much larger pretensions; they are both highly useful in the present age of railway extension, while their elegant appearance will insure them admittance both to the boardroom and the library.

## MINING IN SOUTH AUSTRALIA.

Accounts from the South Australian Mines have been received, up to 24th October, by which we learn that the greatest activity prevailed in the colony in working the mines; and, notwithstanding the numbers of people who were daily arriving, they all found immediate and profitable employment. The shipments of ores had begun for the season; the Kapunda Mine had already shipped as follows:—*Spartan*, 160 tons; *Jane*, 150 tons; *Jane Geary*, 100 tons; and *Sanspareil*, 60 tons—in all, 470 tons. The total shipments from this mine during the season will range from 1000 to 1200 tons of ore of the finest quality; the poorer ores being reserved, until they can be reduced into regulus. The produce of this mine seems to be only limited by the want of accommodation for the miners; as fast as the buildings could be erected, they were occupied by additional numbers of men and their families, and the ground opened up to the present time is a mere handbreadth of the whole. The late acquisition of 100 acres, adjoining the original 80 acres of this mine (for which, it will be remembered, the proprietors paid 2200l. at public sale), has not been touched further than proving the surface in one spot, from which three or four men were raising ore in such quantities, that a few weeks would suffice to pay for the whole purchase-money. Thirty drays, drawn by 240 bullocks, were constantly on the road, carting down the ore to the port, and as many more would find employment. Freight was from 25s. to 30s. per ton, for ballasting the wool ships; this is a great "windfall" for the ships, as they, a short time since, had to pay 2s. or 3s. per ton for sand ballast. A chapel was being erected, to serve also as school-house for the youthful miners, and a provident fund had been established by them, under the care of Capt. Bagot's son; the arrangements for the comforts of the miners, and the way the works were conducted, are highly spoken of by all visitors, amongst whom was his Excellency Governor Grey, just previous to his departure for his Government in New Zealand.

The proprietors have just engaged the services of Capt. John Richards, late of the Laganure Mines, in Ireland; he proceeds to South Australia to the Kapunda Mine, in the *Medway*, this week—and from the high character he has many years borne in his former employ, and his many years experience, will, doubtless, prove a great acquisition to the proprietors of this mine. Mr. Richards was recommended by John Taylor, Esq., and takes out all his family with him; he receives a very liberal salary. It may here be remarked, that a few experienced mining captains, who could take out with them recommendations from such authorities as Mr. Taylor, Mr. Michael Williams, or other well-known gentlemen in the mining world, would be likely to meet with advantageous engagements in South Australia, where mining operations on a very large scale are now commencing. The reports from the Montacute Mine have not arrived; but we perceive, by an Adelaide paper, that new and very fine lodes of ore had been cut in that mine in September. The Sydney capitalists were at last opening their eyes on this field of enterprise; 20,000l., in specie, had already arrived in Adelaide, to be invested in mines; and a second 20,000l. was being raised amongst other monied men of that capital, to follow the first remittance. We perceive, by advertisements in the *Times* and other papers, that a regular succession of large ships are now to be despatched monthly, calling at Southampton, for Adelaide—by all which, miners and other labourers, and their families, will be forwarded to that colony, free of expense. Miners, and others in England, generally express a disinclination to emigrate, unless engaged at fixed wages before they leave; in this they are wrong—the Government, very wisely, do not permit any engagements being made in England, which is done to protect the emigrant, for the probability is, that on their arriving in the colony, they will find wages higher than what they agreed to take; it, therefore, stands to reason, that they will find it much more to their advantage to arrive in the colony unfettered, and at liberty to make their own terms. Miners, and others, who may be willing to avail themselves of these opportunities, may apply to Messrs. Marshall and Eldridge, Fenchurch-street, London; or High-street, Southampton; and at the Emigration Depot, Plymouth.

Major Robe, the new Governor of South Australia, had arrived and taken possession of the reins of Government. His predecessor's departure had caused universal regret in the colony, and addresses from the council, the magistrates, and the colonists generally, were presented to him on the occasion.—We subjoin a few extracts from the papers, regarding the Monster Mine, &c.:

OPENING OF THE MONSTER COPPER MINE.—A few days ago, it was stated that the South Australian Mining Association had sent up a party of men to Burra Creek, to commence operations at (what is now generally known as) the Monster Copper Mine. Since then, a gentleman formerly connected with this establishment, and upon whose statements implicit reliance may be placed, has visited and carefully inspected the mine, and brings back to Adelaide more flattering accounts of the prospects of success than any hitherto received. Our informant (whose notes we copy almost verbatim) arrived at the mine on Saturday last, and found that four dray-loads of ore had already been forwarded to Adelaide, and that upwards of 10 loads more were piled up on the surface, and ready for transmission, although only eight men had been employed in raising it, and that, too, during the period of a single week. The face of the hill, on which the mine is situated, has been opened in three separate places—first, about 100 or 150 yards above the great "bunch of ore," which gave rise to the name of the "Monster Mine;" secondly, at the extreme lower end of the above-named great bunch of surface ore; and, again, about 300 or 400 yards below it, and nearer to the base of the hill. At the first of these spots, a square hole of about 4 or 5 ft. in width had been dug, with a view of ascertaining the presence of ore near the surface, and this having been found to be the case, in great abundance, all further operations were deferred till a future period. At the second of the three spots mentioned, or at what is called, *par excellence*, the "monster lode," an opening had been made in the side of the hill of about 16 ft. in width, and 6 ft. in depth; but, in attempting to follow the lode, it had gradually increased to 21 ft. in width, and presented every appearance of continuing to widen, without any chance whatever at present of ascertaining its depth. At the third and last of these spots, which, as before stated, was about 300 or 400 yards nearer the base of the hill, another opening had been made of about 15 ft. in width, and 5 ft. in depth, and from this a mass of ore fully equal to that of the monster lode had already been raised. At each of these two last spots, the ore had been dug down with picks and gads, very much after the fashion of digging clay for making bricks, and had been wheeled out and piled up on the surface ready for cartage to Adelaide. The whole face of each of these spots was one mass, or wall, of solid ore, increasing in richness the farther it went from the surface, and affording no clue in the opinion of the captain of the mine, or of any of the miners, to the extent to which it was likely to spread, or as to the depth to which it might possibly run; if any opinion could be said to have been elicited from the parties employed at the mine, it was that nearly the whole substrata of the rise on which the mine is opened would turn out to be a solid mass of ore, which would eventually have to be removed. Another batch of miners has been sent up, and with this increased force, at a moderate calculation, from 60 to 80 tons of ore per week may, for some time to come, in all probability, be raised. Should our calculations in this respect approximate to anything like the truth, two practical difficulties will very soon present themselves, and to the overcoming of which the attention of the directors of the mining association must speedily be turned. We allude first to the conveyance of the ore to Adelaide; and next to its shipment to England, or any other future place of destination. At the lowest calculation, 60 teams of bullocks, of eight to the team, would be required to convey the ore to Adelaide as fast as the present increased force of miners could raise it; and, as regards its shipment to England or elsewhere, many vessels must be specially procured for the service, and loaded almost exclusively with ore, as is the case with the produce of the mines of South America. Of course, in hazarding these calculations, we speak of present appearances only, and of the probability of the continuance of an equally favourable state of things. A spring of water, of first-rate quality, has been discovered at the distance of only a few hundred yards from the mine, and an excellent site for a township exists immediately contiguous to the spring. No time should be lost by the directors in laying out the township, and ministering thus far to the comforts of the men, if they wish them to be efficient; for, from the peculiar situation of the mine in the midst of the Burra Creek ranges, the heat is as intense as the employment is exhausting. As to the quality of the ore raised at this mine, parties may satisfy themselves much better by personal inspection at Mr. Stock's stores, than by any description of ours. As far as we are capable of judging, however, it exceeds in richness any we have ever before seen. The shareholders of the mining association have, indeed, great reason to congratulate themselves on their prospects of success; and we have only to add, in conclusion, our ardent hopes that the gentlemen connected with the south end of the survey may speedily discover themselves to be in possession of as many proofs of "inexhaustible wealth" as are now, more than ever, apparent in the northern portion of the special survey.—*South Australian Register.*

The German assayers and miners, who so lately arrived here in the ship *Patel*, from Bremen, have already eagerly inspected the copper, lead, and silver ores produced at the several mines. They are particularly surprised at the richness of the copper ores of South Australia; and as to the galena and lead ores in general, they consider them 10 per cent. richer in metallic substance than any they have been accustomed to examine in Europe; whilst they estimate the least valuable of the ores at Glen Osmond as equal to the best in the German mines of the Harz, in respect of the proportion of silver contained. An experienced German, who has visited the Monster Mine, has calculated that,

with the assistance of 20 men only, 2500 tons of exportable copper might be raised within 12 months; but he strongly advises the smelting of both copper and lead in the province, convinced, as he is, that it is the only way in which the colonial proprietors can obtain their value. He is of opinion, that the native forests will supply ample fuel for years to come, and that, in the meantime, plantations may be reared in the vicinity of the mines, which would abundantly supply every requirement.—*Adelaide Observer.*

The *Tagliioni* is destined to receive the first shipment of copper ore from the Burra Creek Mine. The quantity will chiefly depend upon the time and nautical circumstances, seeing the mines are already productive beyond all anticipation. A portion of the two dray-loads brought into town on Thursday last will be smelted here, in order to satisfy the proprietors of its value by ocular demonstration. West-terrace is destined to be the scene of the contemplated trial operations; but anything upon a larger scale will, of course, be conducted in some locality where the proprietors need be under no fear of legal visitation in respect of those "nuisances or annoyances," which may be justly chargeable against copper works brought into disagreeable propinquity to the dwellings of congregated men.—*Ibid.*

On Thursday last, the first dray-loads of copper ore from the Monster Mine passed through Adelaide, prior to the delivery at the port. The first dray was fitted with a flagstaff, from which floated a span-new representative of the flag that has braved so long "the battle and the breeze." One large lump of ore, said to weigh nearly 24 cwt., and apparently of a quality worth at least 35l. per ton, excited much surprise and admiration; and several shareholders, who were amongst the surrounding spectators, expressed a wish to have the ponderous mass reserved, and presented to the British Museum; but others, who have paid recent visits to the scene of operations, averred that it was so far from being unique, either as to weight, quality, or appearance, that many other specimens of equal, if not greater, size and brilliancy may be frequently expected to arrive from the mine. There was some little appearance of excitement amongst the fortunate shareholders; but the pulse of one large proprietor, which was felt by a professional neighbour, was declared to be "remarkably steady, all things considered." It was a proud day for those who have so spiritedly embarked capital in an undertaking fraught with incalculable benefit to their fellow colonists, as well as themselves; and the accounts which reach us almost daily from the scene of action are enough to banish the last vestiges of colonial incredulity. The southern moiety of the great mineral district has been named by the proprietors (Messrs. Aston, Bagot, and Company), the "Princess Royal Mines," and will be destined to active operations forthwith, the "pioneer company" of miners having been already sent to the chosen scene of action, with the requisite "tackle, apparel, provisions, and furniture."—*Ibid.*

Our Colonial Mining Association is making assurance doubly sure. In addition to the splendid first fruits announced a few days ago, 10 of the miners employed have raised 200 tons of ore, worth more than 4000l., in 12 days, and the breadth, or "bigness" of the principal lode, although not fully ascertained, has been pronounced of enormous dimensions. In short, the estimation in which the shares of the company are held here, may be sufficiently judged of from the fact, that 16 5/8 shares, which were brought to the hammer this week realised above 150 per cent. premium. Mr. Finke has left town on a further exploratory trip; and, wherever the agents of the London companies make their appearance, they will, doubtless, find an introduction to something sufficiently good, although the Burra-Burra Mines of the Colonial Association, seem to possess an astonishing pre-eminence.—*South Australian Register.*

RICHEST COPPER MINES IN THE WORLD.—Extract from a letter dated Eagle River (Lake Superior), Jan. 21, 1846:—"We are now taking out a large amount of the silver rock, having struck it at the depth of 60 ft. The diggings have never looked so well since I have known them as at present, and I feel confident they will improve as we progress. I have now a party of men at work on the bluffs on a well-defined vein of 40 ft. in width. At Copper Falls they are in a fair way to astonish the world. Childs has struck a mass of native copper in the centre of his shaft, which extends entirely across the shaft, 10 ft., and is equally large where it enters the rock as at any part of the mass. He has sunk over 9 ft. on the side of it without any appearance of coming to its termination in that direction. At the Pittsburgh Company's work on the Bluffs they have a rich and well-defined vein. The North American Company have a good prospect. Their location takes the rich vein of the Pittsburgh Company in less than half a mile from the richest point on the vein. The vein on which Mr. Childs is at work (Copper Falls) has been traced on to the location belonging to the North-Western Company, of Detroit. At Eagle Harbour the prospect is very flattering. There are not more than two or three locations where they are at work but what look well."

## IMPROVEMENTS IN TREATING METALLIC ORES.

[Abstract of specification of patent granted to Frederick Bankart, of Champaign-park, Denmark-hill, in the county of Surrey, gent., for "certain improvements in treating certain metallic ores, and refining the products therefrom."—*Civil Engineer.*]

The improvements relate to ores containing copper, whether combined with sulphur or not; and consist in mixing the different ores in such a manner, that those which contain sulphur in excess may compensate for the deficiency of sulphur in the other ores, and submitting the ores so adjusted to successive roastings and lixiviations, whereby a solution of sulphate of copper is obtained, from which the copper may be precipitated in a refined metallic state, which is done in the following manner:—The copper ore is first reduced to powder, and the relative proportions of sulphur and copper which it contains are ascertained by analysis; then if the sulphur bears a less proportion to the copper than one to two, iron pyrites or copper pyrites, also pulverized, are added, in such quantities as will bring it to that proportion. If two or more descriptions of copper ores are to be treated, they must be mixed together in such proportions as will make the sulphur of the mixture bear to the copper at least the proportion of one to two; iron pyrites or copper pyrites being added, where necessary, to insure that proportion of sulphur. And there must always be a sufficient quantity of sulphur ores for the conversion of the copper into a soluble sulphate, and also to allow for the escape of part of the sulphur during the processes. The copper ore, prepared in this manner, is then submitted to such a degree of heat, in free contact with atmospheric air, as will oxidize the metals not already in a state of oxide, and convert the sulphur into sulphuric acid. For this purpose, a common reverberatory furnace is used, and the ore submitted to a dull red heat, in free contact with the air, until the mixture attains a state of seeming fluidity, and it is retained in that state until the evolution of sulphurous vapour nearly ceases: the whole of the mixture is not put into the furnace at once; but it is divided into several portions, and one portion being put into the furnace, another is added when the first has attained a dull red heat, and so on until the whole has been introduced;—the mixture is frequently stirred during the process. The evolution of sulphurous vapour having ceased, or nearly so, the mixture is removed from the furnace to a vat or pit, and water (or a weak sulphate liquor from a previous lixiviation) applied at about the boiling temperature, and retained at that temperature for some time, by means of injected steam, to insure the solution of the sulphate of copper. When the sulphate of copper liquor is drawn off from the residual mixture, the latter is mixed with as much iron pyrites or copper pyrites as will supply the requisite proportion of sulphur; the whole is then subjected to a second roasting, and to a second lixiviation: this process of adjusting the proportion of sulphur in the mixture, and roasting and lixiviating, is repeated until the whole of the copper is obtained from the ore. The next process is to precipitate the copper from its sulphate solution; after which it is to be fused, and run into moulds, for sale as fine metallic copper. Various modes of precipitation may be adopted; but the patentee prefers to employ cast or wrought iron plates, keeping the solution at a temperature of from 120° to 150° Fahr., and as nearly as may be of the same strength, by means of a circulating stream of fresh sulphate solution, which, entering at the top, and being conducted by a pipe downwards, tends, by its greater specific gravity, to displace the lighter solution; the latter, overflowing, is to be returned into the lixiviating vat, to be recharged with sulphate of copper, and this again precipitated, until the refuse liquid becomes a nearly saturated solution of sulphate of iron, when it is set aside to crystallize.

The claim is for mixing of the different ores of copper and iron pyrites in such a proportion, according to the quantity of sulphur relatively with the copper which they respectively contain, and adjusting them in such manner as that ores which hold sulphur in excess may compensate others which are wholly or partially deficient in sulphur, and subjecting such mixture to a succession of roastings and lixiviations (the residuum, after each roasting, having the proportion of copper to sulphur adjusted as before), and thereby obtaining a solution of sulphate of copper, whence the copper is obtained, by precipitation, in a refined metallic state.

DEE BANK FORGE.—*Liverpool Assizes, 4th April, before Mr. Justice Coleridge.*—*Morgan and others v. Francis and another.*—The plaintiffs in this action were Messrs. Morgan, Thomas, and Finch, assignees of the estate and effects of "the Dee Bank Forge Company," bankrupts, and the defendants were Henry Francis, Esq., of Goldsmithy (mortgagee of the said forge, which is situate at Bagillt, near Holywell), and Thomas Bell, of Holywell, auctioneer. It was brought to recover the value of certain tools included in the mortgage deed from the Dee Bank Forge Company to the defendant Francis, and sold by auction by the defendant Bell, in April last year, pursuant to a power of sale contained in the said deed, and which tools realised 104l. 6s. 5d. The question at issue was, whether "tools and implements" would pass under a mortgage deed, and on the cause being called on, and after the special jury was sworn, it was proposed by Messrs. Martin and Cowling, the plaintiffs' counsel, to refer the matter to Mr. Welsh, the Recorder of Chester, to which the Attorney-General and Mr. Crompton, the defendants' counsel, consented.

WETTON PARK IRON WORKS.—On Tuesday morning last another furnace was blown in at these works, making three which are now in full operation at this large and increasing establishment.—*Newcastle Advertiser.*



## Original Correspondence.

## OBSERVATIONS ON HOME MINING.

SIR.—It must needs be an exceedingly false position, in which I am called upon to discuss a mining question with the editor of the *Mining Journal*. But, as it is a situation perfectly unforeseen, I shall, perhaps, in the sequel, be excused, if I do not extricate myself from its difficulties, so entirely as, if I had sought the post, I must justly be expected to do. The difference between us is, probably, not so great, as, from the note appended to the few remarks of last week, it might appear to be. The point affirmed in those remarks was, that the mining operations of the west of England were conducted at a remunerating profit. Your statement is, that the profit, whatever it may be, is unfairly distributed, the labourer taking too little of it. There is no kind of inconsistency between these two statements, and the absence of inconsistency is the absence of any real difference. It is further stated, that you do not concur in the view taken of the mining prosperity of the district referred to; but, of course, the Editor will concur in the original statements of the *Mining Journal*—for instance, it was recently set forth in those columns, that the quantity of copper ore, raised and sold during the last quarter, exceeded 50,000 tons; and again, that new mining soils were being pierced, and old ones reopened and wrought, to the great advantage of the adventurers, and of others interested. This marked activity and success attending mining operations, call them by what terms you will, appeared to me to be equivalent to mining prosperity, and were, for that reason, so described. The statement, therefore, good or bad, is substantially the statement of the *Mining Journal*; and if the arrow's shot have any sharpness, it is because they are flung from your own bow. In this I had fortunately forestalled your very proper exhortation, of having a reverend regard to facts and figures, for I used just those which were of your own collecting, and, indeed, on re-perusing your article of the 21st of March, I find I have rather lessened the lights of your mining firmament, than increased them. I have no doubt that, upon an examination of the point, I should agree with you, that the labouring miner is entitled to a better remuneration. I think, indeed, I have signified so much on former occasions; I conceive that, as a rule throughout England, the wages of labour might be raised with ultimate advantage to the employers—that those who furnish the sinews, the leverage, the motive power, of manual operations, should not be slighted with a niggardly and incompetent pittance, as their wages; that they, in fact, who largely contributed to the planting of the vineyard, should be liberally partakers of its fruit. But this is a point *dehors* the question of mining prosperity, and scarcely affecting the issue one way or another; and so also is the question, as to whether the present prohibitory duties on foreign ores shall be continued or relaxed. There are, perhaps, but slight reasons, why this class of articles should stand out in exceptional singularity, from the operation of a fiscal law, which applies itself with universal advantage to almost all things else. But I have no call at present to the elucidation of these points; my sole thesis being, at this time, the prosperity of the mining west of England. It is, I believe, no new feature in human affairs, that, occasionally, parts should not keep pace with the general growth of the whole community—that some sections of the social system are stationary, or, perhaps, retrogressive, while the portions, which together make the aggregate, are manifestly advancing. Neither the discord, nor the decay even, of the subordinate members, is inconsistent with the vigour and harmony of the whole.

"Thus jarring interests of themselves create,  
The according music of a well-mixed state."

But, if the miners of the western districts of England are unjustly pressed down and overridden by persons, whose true duty it is rather to raise and protect them, it is an honourable task for those to whom the powers and responsibilities of the press attach, to help the weak, and to remember the neglected.—*Islington, April 2.*

## PATENT GALVANISED IRON COMPANY.

SIR.—I have read with pleasure the speeches of Mr. Malins and Mr. Mathews, in your *Journal* of last week, at the half-yearly meeting of the Patent Galvanised Iron Company, holding out, as those gentlemen do, such glorious prospects for the future, and I sincerely hope they may not be disappointed. At the same time, I should be much obliged by either of those gentlemen, or some of your Glamorganshire correspondents, informing the public, how it has happened that, up to this time, so very little, if any, good has been done at the Cefn Cwse Works, or at those of their neighbours (Sir Robert Price's), although, both of them, as I understand, have been in operation for many years?—*An Engineer: Neuchâtel, April 6.*

## MINERAL RESOURCES OF IRELAND—No. IV.

SIR.—In pursuing our inquiries relative to the ore veins of the south and south-west of Ireland, I have to recal your attention to the localities of Crookhaven and its environs, in respect of the nature and contents of the mineral deposits of these districts. The rocks are, as described in my last letter, of the sedimentary primary formation of geologists. The chief mineral veins, containing copper ore, are associated, or imbedded, in the talcose rocks. Wherever quartz veins, or lodes, accompany or lie in talc, or greywacke containing talc, copper ore may, in these districts, be sought for with great probability of success; and, what is remarkable, purple copper ore seems to be the prevalent ore of veins found in such peculiar positions. Where the veins are much mixed with chlorite or green pebble, or where the rocks in which the veins lie assume a greenish siliceous character, yellow ore prevails—the mass of the ore, and its quality in per centage, depending much on the kindly nature or hardness of the rocks in which the veins lie, particularly the overlying walls of such veins. Where the rock is hard, the ore is found in minute grains; and where the overlying wall is of a flocculent nature, the ore is found solid, or in large lumps or stones. There are several ore veins, or lodes, on the Crookhaven property—all, of any note, bearing about two-and-a-half points north of east; but of these, four may be considered deserving the miner's immediate attention; three near the southern cliffs, two of which contain purple ore; and one, north of the middle range of rocks, which almost divides the property into equal north and south divisions, and which lode shows indications of yellow ore. The purple ore, whether of Cosheen or Crookhaven, is sulphuret of copper, and produces, by assay, 60 per cent. of pure copper. The yellow ore is also a sulphuret, but not all of the same produce, as some specimens have, on analysis, been found to contain 32 per cent. of copper—while others produced but 25, and some very poor only 16.

It need not be remarked to those acquainted with mining, that ores prepared for market, even from mines producing such rich ores, do not, except in very rare cases, contain these high per centages of pure metal. The average produce may rather be set down as making from 12 to 18 per cent.; but it is a matter of the greatest regard to the working miner to have such rich ores before him, as a few inches in width of such ore-bearing veins are equivalent in market value to lodes, perhaps, some feet wide of poorer ores—that is, such as are mixed with foreign and antagonistic ingredients. North of Crookhaven, several metallic veins show themselves in the cliffs, some of which are now opening on Mr. Notter's estate on trial. These continue till we arrive at the copper mines of *Dhurade*, about four miles north-west of Crookhaven. This promising mine is situated on Dunmanus Bay, having lofty hills and mountains on the east, south, and west, placed amphitheatrically like, and now well studded with neat slated cottages, built for the use of the miners employed in the works. This mine is placed under the management of Capt. Henry Thomas, whose superior talents as a mine agent has placed it in a most excellent, workman-like, and very favourable position. The ore is all of the sulphuretted description, being yellow copper pyrites, and is variable in its assay. There is a good horse-wind erected for drawing, water-wheel and stamp heads, with sufficient water-power for crushing, &c., the ores; and all the necessary offices, working shops, and sheds, built around the mine in a very convenient and picturesque manner. The rocks of the *Dhurade* district are of nearly the same formation as those of Crookhaven and Cosheen, and the ore vein stone is quartz, as usual. Some cargoes of ore have been shipped from this mine; but, as yet, the works are not sufficiently extended, nor deep enough to meet the high expectations which may be reasonably expected, when the mine is in its desired state. The ore veins of *Dhurade* deviate from the general bearing of the mineral veins of that part of Ireland—running more to the north and south. If these were traced to meet the lodes that bear eastward and westward from near the village of Golden, toward Three Castle-head, a good bunch of ore would most probably be discovered at the junction, or crossing position, of the lodes. New roads are being built through this mountainous district, which will assist considerably in facilitating the carriage of the ores to the safe and commodious shipping harbours at and along the Crookhaven coasts, besides expediting and insuring regularity of shipment—a matter depending too much on certain states of weather, as regards the Dunmanus coasts.

A question, which has lately engrossed the attention, it would appear,

of some Cornish agents, who visited this part of Ireland, deserves our consideration. The question is—whether the assertion is—that the ores of Cork are superficial; that the lodes and veins thin out in depth; and that, indeed, the ores in quantity throughout Ireland, are only found near the surface. These points will claim some notice in my next letter, with a few remarks on the nature of ore veins in general.—*St. Pierre Foley: Arderton's Hotel, Fleet-street, April 3.*

## DISCOVERY OF GOLD IN CORNWALL.

SIR.—Aware of your anxiety to collect information respecting all matters of interest to the mining world, I forward, for insertion in your *Journal*, the following notice of the occurrence of gold in a cross-course in Cornwall, as detailed in a letter from John Garby, Esq., of Treveire, near Redruth, to the secretaries of the Royal Geological Society of Cornwall:—"About a year since, I intimated to you that I had detected the presence of native gold from a mineral vein in this neighbourhood; but, as the statement had something startling in it, I felt diffident in noticing it, till I had perfectly satisfied myself of the justness of the conclusion; as, if I mistake not, its existence, in either lode or cross-course, has not before been discovered in Cornwall, and in only one instance in Devonshire. The accompanying specimens I picked up at Wheal Sparrow, near Redruth, whilst searching for octahedral quartz, ores of nickel and of cobalt, and octahedral fluor, all of which have been found in the cross-course, on which several levels have been driven in search of the cobalt ores it contained. This cross-course is the western one, as shown on the map accompanying Thomas's *Report on a Survey of the Mining District, &c.* Without entering on any particular speculation relative to its occurrence, I simply give the detail of the circumstances connected with my finding it. When searching the pile, close to the shaft's mouth, for octahedral quartz, &c., which has been produced here in the greatest perfection and beauty, I met with a specimen whose peculiar appearance attracted my curiosity, as it bore very great resemblance to the quartz that is auriferous from the gold mines of Transylvania and Hungary. After well washing the stone, I anxiously examined it; and, to my great delight, discovered what I considered minute particles of gold, scattered on the surface of the specimen. I hesitated to notice it to any one till I had recourse to the blowpipe, and till I saw what action the acids had on it. The result of those experiments proved that my surmises were correct; and recollecting also that grains of gold have not been of unfrequent occurrence to parties streaming for tin in the valley beneath Wheal Sparrow, which leads to Laity Moor, north of Redruth, where also grains of gold have been found, I presume to offer these, for the museum of the society, as indubitable specimens of Cornish gold, occurring in a cross-course. This cross-course is in kellas, and ranges along the north-western side of Carn Marth, within 300 or 400 fms. from the granite at the surface; its 'dip' or 'underlay' is about 15°."

*Gwenap, April 3.*

ONE INTERESTED.

## GEOLOGICAL SOCIETY OF CORNWALL.

SIR.—Permit me to remark that in your Number for the 14th inst., you were quite as harsh, as candid, with our folks of the Geological Society of Cornwall; doubtless your intention was to do them good. I have reason to complain of their omission some years ago to publish, or even read, a paper of practical bearing on metalliferous deposits, changes, gossans, &c.; of course they could not have deemed it of sufficient worth. However defective this paper might have been in point of classical or scientific elegance, there was, in my opinion, considerable matter that might serve as a nucleus for addition and improvement. I believe the paper, at the time, was unique in the study, therewith were 36 specimens of such peculiar marks and features, that I much regret not keeping them in my own possession, as a help to enunciate my views to any calling friend. I stated my conviction, that the sulphuret of copper, or any other metallic compound, might be coerced into various false forms; I had not then any specimens of this metal, but I have since verified my anticipations, and possess the grey ore of copper, of a crystalline form, related to sphatose iron; I am disappointed in those specimens lying unnoticed, if not lost, in the institution. I would offer an apology for the indifference of Cornish miners to such matters. It is, to a very great extent, true that the thoughtful amongst them are left to *tirer le diable par la queue* for a living. Enough of this; and I beg to conclude by a question—I am not aware that any professional notice has been taken of a bed of siliceous sand and pebbles, independent of the general raised beach lying on a part of Wheal Dartington bog, near the Mount's Bay; there is more such sand, without pebbles, at the foot of St. Agnes Beacon, the latter being a beach and cliff, 360 ft. above the present sea level—are we to suppose that this flint, with chalk, once lay superposed, and that the latter has been removed by diluvial action? This marine detritus is not allied to the vicine rock, there being nothing else of flint for many miles.

There is a place now to be seen at the foot of the Beacon, in St. Agnes, where the siliceous sand is prettily veined, or stratified, and the strata are interrupted in one place by a transverse line, developing a series of heaves; the sand is very fine, of uniform size, and, I believe, lying under a bed of beautiful clay, unmixed with any grit or coarse matter, the both lying at the foot of a cavernous cliff, 20 feet high, which, with the clay and sand, is covered by a bed of diluvium—nothing organic has ever been found in this beachy matter. There passes an elvan of some miles in length, characterised by feldspathic cavities, and, in the vicinity of the Beacon, those cavities are filled by silicates, either of tin or manganese.

*Pool, Illogan, March 30.*

JOHN PHILLIPS.

## NEW ABERDEEN GAS-LIGHT COMPANY.

SIR.—Will you allow me, through the medium of your useful *Journal*, to ask the proprietors of the New Aberdeen Gas-Light Company, resident in England, whether they know that the price at which this company is supplying gas is only 3s. 6d. per 1000 cubic feet—the nearest coals being distant 150 miles? Are they also aware, that the chairman, and some of the directors, hold but a very small interest in the Gas Company, whilst they are large consumers of gas? It would be well if the proprietors of this, as well as other joint-stock companies, would look a little more after their interests, and not leave them to be managed by those whose pecuniary advantage points quite in an opposite direction. *FAIR PLAY.*

*London, April 6.*

## NEW RAILWAY ACTS.

SIR.—Allow me to suggest to those interested in the new lines of railway, that in all the Acts, a clause should be inserted, making it compulsory upon all committees, in the case of any shareholders wishing a concern to be wound up, after the obtaining of the Act, either to comply with the wishes of such shareholders, or repay them their deposits. This would effectually close all the humbugs, and give fair play to the genuine undertakings—for, unless some such precaution is taken, many a bubble will be carried out, for the sole benefit of a few interested individuals.

*Newcastle, April 1.*

A. H.

## IMPROVEMENTS IN THE CONSTRUCTION OF RAILWAYS.

SIR.—I am glad to find, from the remarks of your correspondent, "R.", that a great and salutary improvement is about to be made public, respecting the construction of railways. This is a subject which has been long neglected, and its importance overlooked, both by the Government, and by the various existing railway companies. Until a complete revolution shall take place in the present miserably inefficient system of laying down the rails, mis-called the *permanent rails*, upon locomotive railways, no safety can be reasonably looked for, where anything but a moderate speed is required. I have seen Kyanised sleepers removed at the expiration of three or four years, from under the *permanent rails*, into what had once been the heart of which a man could thrust his arm up to the elbow—the sleepers being a mere mass of rotten pulp, covered thinly by a case of yet undecayed wood. Yet these *imperfectable* materials are chosen for the permanent foundation on which to sustain rails of flexible iron, subjected to great pressure, and to sudden and violent strains. As railways become older, the rotting of these wooden sleepers will become more and more frequent; and the accidents, which occur from the sinking of the rails into the rotten wood, will necessarily be multiplied. Cast-iron sleepers, though at first far more expensive than wooden sleepers, would ultimately prove a saving to the railway proprietors; and the malleable rail, imbedded longitudinally in the cast-iron sleeper, would admit of being of a lighter construction than at present, because it would, at every point, be equally sustained by the unyielding sleeper of cast-iron. The cast-iron sleepers would be secured transversely by braces of either cast or wrought-iron; and the whole framework thus bound together, and resting upon a concrete foundation, would outlast a hundred generations of the present railways.

The impulse, also, which would be given to the staple trade of this country, by the immense demand thus created for cast-iron, should not be overlooked; whilst, though the weight of iron employed in constructing a railway would be much increased, yet its cost per ton would be diminished by fully one-half—cast-iron becoming the principal, and wrought-

iron the subordinate, material in the formation of that railway. It seems probable, that if travellers by railway were all fully alive to the insecurity of the present system, something would be done towards rendering the lines of railway secure; but, at present, a man who would hesitate to walk gently over a decayed plank, or bridge, commits himself to a railway train, which is hurried at the rate of 60 miles an hour, over a foundation of rotten (or rotting) sticks—and feels quite easy and secure, not because he knows anything of the matter himself, but because the line of rails was laid down under the direction of some mighty engineer, who, having laid out millions in the construction of railways, must, therefore, know best how to construct them; and thus the whole public mind is, instead of being open to reason and conviction, utterly enslaved to the opinions and dogmas of a few railway engineers, whose judgment, if as erroneous as their estimates usually prove, ought not to be wholly relied upon.

*Coleford, April 6.*

R. MUSKET.

## GREENHOW'S GEOMETRICAL RAILWAY.

SIR.—I cannot allow the letter, which appeared in your columns of last week from Mr. Musket, to pass, without acknowledging the candid and straightforward manner in which he explains that he did not allude to me in his letter of the 21st March, wherein he said that "neither party clearly comprehended the nature of the question before them;" and, also, to thank him for admitting the error he had fallen into, in regard to the position of the wheels of my carriage. Had other parties acted with equal fairness, it would have rendered much of the correspondence, which has taken place, unnecessary. Mr. Musket supposes, that the inclination of the spokes inwardly will require them to be much stronger, and, consequently, of additional weight. Of course this will, to a certain extent, be the case, though not to the degree at first apparent: were the wheels on the railways, as at present constructed, made with the spoke inclining to the extent I propose, it would be scarcely possible to give sufficient strength to them; because, from the inadequate adjustment between the wheel and the rail, when the carriage is in rapid motion, it is continually striking violently against one rail, and rebounding to another, on account of the resilience, or rebound, diverting the centrifugal force from its straight course. Now, by the arrangements of the geometrical railway, this rebound cannot take place—the wheels being exactly fitted to the rails, and resting firmly upon them, allow of no lateral motion; and when resilience occurs, the converging spokes offer a direct resistance, the pressure being thrown longitudinally upon them. From this same cause, preventing those violent blows on the rail which now occur, I anticipate that cast metal may with safety be used in their construction—it being much better fitted to resist compression than malleable, also will be less likely to create resilience, from its want of elasticity; and, therefore, the elevation of the wheels on either side, by the combined strength of the centrifugal force and that of resilience, will not be so likely to take place—consequently, the motion of the locomotive will become much steadier, and, being freed from the oscillations and concussions which at present arise from the incorrect action of the wheel on the rail, the whole machine will become much more durable, and, consequently, less expensive to keep in repair; at the same time, that the safety of the traveller is secured, as well as his comfort materially increased. Besides the freedom from accident guaranteed by the geometrical system, another great advantage is the saving afforded in cost, more especially at this present time, when so much capital is required to construct the different railways, that economy becomes a matter of serious importance. In the first place, by using cast metal to construct the rails, a saving of upwards of 1000*l.* a mile is effected. The rail of the size I propose, together with the chairs cast with it, weigh about 95 lbs. a yard,—thus the four lines of rail necessary for a double line will cost, in round numbers, say, 2500*l.* a mile; whilst, taking the present rail of malleable iron at 80 lbs. a yard, and the chairs at 14 lbs. a yard, the cost will be, in round numbers, 3500*l.* a mile—this, calculated according to present prices, showing a saving of about 30 per cent., being a matter of no slight consideration, when the great extent of the proposed lines is taken into account.

Secondly—By a peculiar arrangement, allowing one pair of wheels to alter their position, the train can pass with safety round a curve of any radius; whilst, from the true adjustment of the wheel to the rail, the speed does not require to be reduced: this advantage will enable deviations to be made from a straight line in passing through a difficult country,—by which means, expensive tunnels, cuttings, or embankments, may be avoided. Thirdly—By the addition of rails placed within, and parallel to, the others, the edge of which describes a succession of curves, into which similar curves in an iron plate secured to the inner margin of the driving wheels enter, the engine is enabled to draw the train up any incline which its tractive power can overcome—a secure and sufficient fulcrum being afforded by the coupling of the curves; and at the same time, it is enabled to pass safely down. By this means many inequalities of surface of great length, yet of inconsiderable depth or height, may be passed without the necessity of cutting or embanking—thus, by simplifying the construction, greatly diminish the cost. Fourthly—From the perfect adjustment of the different parts, which are all calculated from a fixed data, and secure a true action of the wheel on the rail, wear and tear will be much diminished, not only as regards the rails themselves, but also the carriages not being subject to the shaking and vibration which now takes place; and lastly—though not of least consequence—the locomotive engines will be much more durable—their action being allowed to go on undisturbed by the oscillation which now takes place from the unequal bearing of the wheels on the rails. I might now state, that it has been found in practice, that the engines and carriages are much more durable, where great attention has been given to lay the rails with great accuracy, allowing as little play as possible between the flanges of the wheels and the rails; but with the wheels constructed as at present, having the flange almost at a right angle with the surface of the tyre on which it rests, a close adjustment between the wheel and rail cannot be obtained—because, if too closely fitted, the grinding between the flange and the side of the rail, would soon destroy both, if even it did not compel the train to go off the line, which certainly would be the case were a chair to become loose, or any inequality in the rail to occur.

I have tried to convey a correct idea of the system I propose to pursue in the construction of railways, so far as it can be done by description,—but it cannot be done so clearly and comprehensively, as by an inspection of the models, and the diagrams illustrating the subject, which I will be most happy to explain to any of your readers, if they will call at the office of the geometrical railway. At this time, when the attention of the Legislature is particularly directed to railway matters, I trust you will excuse the length of my remarks.—*C. H. GREENHOW: 3, Lothbury, April 8.*

P.S.—Should it be deemed desirable to use malleable iron, by drawing it in the shape of a tube, an equal saving will be effected.

## PARSEY'S COMPRESSED AIR ENGINE.

SIR.—Your correspondent, Mr. Musket, of Coleford, takes exception to my observations on Mr. Parsey's *invention*, asserting they are raised upon a fallacious foundation, and the deduction is, therefore, absurd; he says, also, that the familiar law is a false one—or rather, that I have misapplied it. This he has failed to prove, though he has given evidence of his own imperfect knowledge of the subject. He has also grievously garbled the quotation from my letter, on which he makes his comments, and has unnecessarily, if not disingenuously, assumed false quantities, on which to base his *argumentum ad absurdum*. I am sorry the necessity devolves on me to set right one with his scientific pretensions. Can it be necessary to inform Mr. Musket, that the amount of the expansive force per square inch of any number of similar measures of atmospheric air, compressed into one measure, is just equal—minus the loss of latent heat—to the aggregate sum of the natural expansive forces per square inch of all the said measures of atmospheric air, taken separately, and *vice versa*; and that, therefore, the familiar law is neither false nor misapplied? Again, can he, by any possibility, be ignorant that 120 lbs., instead of 16 lbs. (as he puts it), on the square inch, is the mean expansive force of eight measures compressed into one; and 15 lbs., or one-eighth—figure too readily recognised to suit his purpose—and not 2 lbs., the well-known natural expansive force per square inch of one measure or volume? Can it have escaped him, that I have, in the passage to which he alludes, and throughout my letter, used the modified term artificial expansive force (omitted by him), in contradistinction to natural expansive force? Does he not know, that there is no such thing as absolutely uncompressible air, either on the surface of the globe, or, probably, for some considerable distance from it; and that, therefore, the fallacy and absurdity lies with him, in so speaking of atmospheric air as to argue that, when it is freed from artificial compression, it is devoid of natural expansibility? His comments would imply either an ignorance or a forgetfulness on these points, unaccountable in any one pretending to even a moderate share of information on the subject, so much so as to give me but little concern as to his opinion of the foundation upon which I have raised my objections to Mr. Parsey's system of railway traction—a foundation which his (Mr. Musket's) nibbling at has done, and can do, nothing







## THE RAILWAY GAUGE QUESTION.—Continued.

The following points of interest are from the evidence of witnesses examined before the Gauge Commission:—

**BRUNEL ON THE BROAD GAUGE** (engineer of the Great Western, and inventor of the 7 ft., or broad gauge), examined: 3918.—Had you, before you took the management of the Great Western Railway, any employment in railway matters?—No.

Having seen the working of other railways, and of the Great Western since its entire opening, are you inclined to think it was an injudicious arrangement to alter the gauge to 7 ft., or that a less difference would have been better?—To answer that, as I will endeavour to do with candour, I incur the risk, I am afraid, of being accused of wild notions; I should rather be above than under 7 ft. now, if I had to reconstruct the line.

You were engineer of the Taff Vale?—Yes.

Did you decide the gauge of the Taff Vale?—Yes.

What induced you to depart from your general rule in that particular instance?—One of the reasons was one which would not influence me now. At that time I assumed that the effect of curves was such, that the radius of the curve might be measured in units of the gauge; then I expected to have to lay out that line with a succession of curves of small radius, which is the case as the line is laid out, and I assumed that the narrow gauge was better than the wide gauge, as regarded curves.

Is it optional with you to fix the gauge of lines projected in Ireland, of which you are the engineer?—I have understood that it is a question which has been pretty nearly decided by higher authorities, and that it is to be 5 ft. 3 in. I do not myself see much in the 4 or 5 additional inches, though it is something.

You are the engineer of some foreign railways?—Yes, the railway making from Genoa to Turin, under the Sardinian Government.

Is the question of gauge an open question there?—Yes, except as far as I may have decided it.

How is it decided for that particular line?—I recommended 4 ft. 8½ in.

Is there any reason which induced you to give that recommendation?—The reason that led me to adopt it was, that I did not think that either the quantities or the speeds likely to demand it for many years to come in that country required the same principle to be carried out that I thought was required here, and I thought it very important that they should secure the good will of certain other interests which would lead into and out of this railway. As a question of policy, as much as of engineering, I advised them to adopt that gauge. I thought it was wise to conciliate the interests of the Milan and Venice Railway, and others which are likely to be connected with us. The Milan and Venice is being constructed, and the part between Padua and Venice is open. We hope to join at Milan; but there is a short space of Austrian territory between Milan and the Sardinian frontier, and I thought it likely the connection between the two railways would be facilitated by our offering the same gauge. I do not think that high speed will ever be such an object there as here; and the weight of the trains will certainly never be so great; and, therefore, I think the circumstances are not the same. Still, if there was no reason whatever for fixing the gauge at the smaller width, connected with other railways or other interests, I think that, in all probability, I should have adopted a wider gauge.

In the railway which you contemplated making to Port Dynllaen from Oxford, do you contemplate using the broad gauge?—Yes.

Do you think the traffic of that place would equal the Italian line?—Yes; upon a considerable portion of the Italian line there will be a good deal of goods traffic. Genoa is a large importing and exporting place, with a very populous district round it.

Looking at the whole question, are you of opinion that you have, in the main, realised the objects you had in view in the adoption of the wider gauge?—Yes, I think so.

**SPEED AND SAFETY EQUAL ON BOTH GAUGES.**—I think that every circumstance connected with the construction of the railway is in favour of the wide gauge, as respects the safety of the carriages and the facility of their running at high speeds; but I still should not be at all afraid of running carriages at 60 miles an hour on the narrow gauge. I dare say that I have been at that speed on the narrow gauge; and if I were going, I should not be afraid.

**TRIFLING INCREASE OF COST IN THE CONSTRUCTION OF THE GREAT WESTERN.**—Our embankments and cuttings are not greater on the Great Western than on the London and Birmingham; but then, of course, they have the advantage of a greater width outside the rails. Still, the difference theoretically is not so great as it might at first appear to be, because part of the difference in the case of the Great Western arises from the circumstance, that I not only increased the gauge of the rails, but I increased the width of the way which I proposed each system of railway should occupy.—*Ibid.*

**ROOM OCCUPIED BY STATIONS ON GREAT WESTERN SMALLER THAN ON ANY OTHER LINES.**—It may, at first, appear odd, but the fact is, that, taking surface for surface, our stations are less for the same convenience, because the amount of surface covered by our carriages is rather less per passenger. The length of platform is something considerably less, so that the actual surface required for carriage sheds, and for all other contingencies of station, is, if anything, less.—*Ibid.*

**QUICKER TRAINS GREATER SAFETY.**—You are of opinion that the increased speed which you have given to the express trains is less safe for the public than the ordinary speed of mail trains before the express was put on?—All things considered, I do not think there is much difference. Of course, if you have every other circumstance the same, I presume it must be admitted that 60 miles an hour involves some increased danger over 40; but that increased danger is met by increased precautions—and I believe that, all things considered, the express trains are as safe as the others. The more the speed is increased, the more careful we necessarily become in the construction and in the state of the carriages.—*Ibid.*

**DESCRIPTION OF CLEARING-HOUSE.**—The clearing-house system, which has grown into such extraordinary reputation by the discussion of last session, is simply a business-like way of ascertaining where the carriages are. There is nothing very extraordinary in its arrangements. It is a mode of ascertaining the amount of stock that has run upon different lines, and balancing account as to that; but it does not at all render the system an economical one.—*Ibid.*

**BRAK OF GAUGE NO INCONVENIENCE TO THE COAL TRADE.**—Experience in railway matters enables me to state that, as regards coal, there is no difficulty whatever in keeping up a set of waggon for that particular branch of trade; the trade is regular, the demands and supply are very regular indeed, and there is no difficulty in having, particularly for the large consumption of Oxford and that neighbourhood, a stock to that particular purpose. That stock, I believe, would be a new one; and I am quite sure that, if the line is made to Rugby, the coalowners, and all parties carrying coal, will forget all their difficulties, and be too happy to have a stock made to supply the Oxford market.—*Ibid.*

[To be continued.]

**PROJECTED RAILWAYS.**—A circular will be immediately issued from the Joint-Stock Companies Registration-office, addressed to the several provisionally registered railway companies, stating that it is the intention of Her Majesty's government, immediately after Easter, to propose to Parliament a bill to enable any railway company, which at the time of the passing of the bill shall not have obtained its Act of Parliament, to dissolve itself. By the bill it is intended to provide for the calling of a meeting of the shareholders, either by the managing body, or by a given number of shareholders, at which meeting it is intended that the holders of a majority of the shares in the company, or the holders of three-fifths of the shares belonging to those present, or represented by proxy, at the meeting, shall have the power to determine upon the dissolution of the company. Due provision will be made for a sufficient public notice being given of the time and place of meeting, and of the mode in which absent shareholders are to be represented by proxy. Upon the dissolution being carried at the meeting, the property of the company is to become forthwith vested in certain persons to be appointed for the purpose of winding up the concern, and, after discharging the liabilities, for distributing the surplus. The actual holders of scrip are to be taken as shareholders, entitled by themselves or their proxies to attend the meetings.

The clause to be proposed by Mr. Hudson, after Easter, to be inserted in all railway Acts, provides that registered shareholders, "at a meeting called for the purpose of dissolution, at which meeting three-fifths of the registered proprietors shall be present, either personally or by proxy, shall be enabled to dissolve, having given full compensation to all landowners for any losses which they may have sustained from the operation of the Act."

**SIR R. PEEL'S RAILWAY MEASURE.**—A gentleman, of considerable experience in the management of Parliamentary Bills, suggests the following as an amendment to the Ministerial railway measure:—"See Standing Orders of House of Lords, page 44, No. 5. That no bill to empower any company to execute any railway, or other public works, shall be allowed to proceed, unless the committee on Standing Orders, or unless the committee on the bill when the compliance with the Standing Orders is to be proved before such committee, shall have specially reported—"1. That a draft of the proposed bill was submitted to a meeting of the proprietors of such company, holders of scrip certificates of shares to be issued in such company to be deemed the assignees for such shares of the original subscribers, at a meeting held specially for that purpose—"2. That such meeting was called by advertisement, inserted for two consecutive weeks in the newspapers of the county or counties wherein such works were proposed to be executed, or if there are no newspapers published in such county or counties, then in that of the nearest county wherein a newspaper is published—"3. That such meeting was held on a period not earlier than seven days after the last insertion of such advertisement—"4. That at such meeting the draft of the proposed bill was submitted to the proprietors then present, and was approved of by at least three-fifths of such proprietors, the holders of scrip to be deemed the assignees of the original subscribers."

**NEWQUAY VIADUCT.**—Mr. Treffy has laid the foundation stone of a viaduct on the railway with which he is connecting his ports of Newquay in the North, and Par in the South Channel. The viaduct will be about 410 ft. in length, and about 90 in height from the foundation, or 78 from the surface of the ground.

## WALKER'S RIDDLING MACHINE.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—Knowing your great desire to give publicity and countenance to any invention calculated to facilitate commerce, I respectfully request the enclosed testimonials, and remarks on my Patent Riddle, may be inserted in your journal.

ROBERT WALKER, Colliery Viewer.

Gerard's-bridge Colliery, 8th April, 1846.

[COPY.]

To Mr. ROBERT WALKER, Gerard's-bridge Colliery, St. Helens.

Dear Sir,—I have great pleasure in annexing you copies of testimonials on the efficiency of your Patent Riddle, received from John Fletcher, Esq. of Ladyshore Colliery, near Bolton-le-Moors, and Mr. George Forster, the colliery viewer at Standish Colliery, near Wigan. Such testimony, I feel assured, will be properly appreciated by all those who know the respectability and long experience of the parties who have tried your riddle; and I cannot doubt, that they will, ere very long, be generally used by all extensive coal proprietors, both in this and the adjoining counties. The one I sent to Messrs. Hird, Dawson, and Hardy, of the Low-moor Iron-works, Yorkshire, is not (I believe) erected yet: therefore, could not expect a testimonial from them at present; but I may say, that Mr. Dawson, of the above firm—who ranks high for his general knowledge of such things, and in whose judgment I would place the most implicit confidence—expressed, when here, his decided approval of its principle and utility.—Congratulating you on your success,

I remain, dear Sir, yours, obediently and truly,

ROBERT DAGLISH, Jun.

[COPY.]

Ladyshore Colliery, near Bolton, Sept. 9.

Sir,—After three months' trial of "Walker's Coal-Riddling Machine," I have great pleasure in stating, that I consider it a valuable invention, that it does its work thoroughly, and with a very small amount of breakage. (Signed) JOHN FLETCHER.

To Mr. R. Daglish, Jun., St. Helen's Foundry.

[COPY.]

Standish Colliery-office, near Wigan, Nov. 6.

Sir,—Pardon my seeming neglect, in delaying so long to give you my opinion relative to the working of "Walker's Riddling Machine," which Mr. Taylor has had erected at the Standish Colliery. It has been at work about six weeks, and I have given to it a great deal of my time and attention, so that I might ascertain its utility over those screens we have had in use for some time past. I must confess that it far exceeds all other methods of screening, that I have had the opportunity of seeing in the coal districts of Northumberland, Durham, Yorkshire, and Lancashire. I find there are many advantages to be derived from the adoption of the cylindrical riddle, over those in general use: its revolving motion completely prevents the breakage of the coals, and makes a complete separation of the coal from the slack. Besides, there is a great saving in time and labour, and I have no doubt but one riddle, properly erected and worked, would effectually screen four hundred tons of coals and slack in ten hours. When such advantages are to be derived from the adoption of this valuable invention, may we not reasonably expect, that "Walker's Patent Riddling Machine" will eventually surmount all prejudice, and supersede all other modes of riddling and screening coals now in use.

I am, Sir, your obedient and humble servant,

GEORGE FORSTER.

To Mr. R. Daglish, St. Helen's Foundry.

In addition to the foregoing testimonials, Robert Walker begs respectfully to invite an inspection of two of his riddling machines, which have been at work at Gerard's-bridge and Cowley-hill Collieries, near St. Helens, Lancashire, for upwards of thirteen months. Applications will be promptly attended to, by addressing me at St. Helens, or Mr. Robert Daglish, of St. Helen's Foundry, Lancashire.

(Signed) ROBERT WALKER, Coal Agent, St. Helen's.

**MINING SPECULATION.**—At the Cornwall Lent Assizes, Messrs. Borslase and Co., merchants, at Gweek, brought an action against Mr. Sankey, a gentleman, at Canterbury, to recover the value of some materials supplied to a mine during the time he was a shareholder.—From the statement of counsel, it appeared, that the defendant had speculated in Cornish mines. Prior to 1840, he was connected with the St. Hilary Mining Company, which in the autumn of that year thought proper to speculate in the purchase of another mine called Wheal Leeds mine. The defendant applied for shares in this new concern, and was allotted 45. A meeting was then held, at which it was agreed that the shareholders should pay the sum of 12. upon each share, an instalment of 5s. to be paid in September, another of 5s. in October, and the remainder before the following February. The defendant paid the first call, amounting to 11. 5s., but upon the next falling due, he wrote a letter promising to pay it, which promise he never fulfilled, and had neglected also to pay the subsequent calls. The mine was carried on till the year 1841, when it was found to be a bad speculation, and was abandoned. The plaintiffs, Messrs. Cornish and Borslase, had furnished timber and other materials to the mine during the period of its working, and sought by this action to recover the value of those materials, amounting to 511. 5s. 4d.—In support of the case, Mr. Crowder produced the evidence of Henry Rymer, the secretary to the company, taken by commission on account of illness; and called as witnesses Charles Richards, who was manager of Wheal Leeds, and Francis Johns, principal clerk to the plaintiffs.—Verdict for the plaintiffs for the amount claimed, 511. 5s. 4d.—**BATTENS v. TRYPE, MACRAX, HOWDEN, AND SEVEN OTHERS,** was a case similar in character to the preceding. The defendants were adventurers in Wheal Sarah, in the parish of Gulval, and the plaintiffs, Messrs. Batten, of Penzance, brought the action to recover the value of materials supplied to the mine.—Verdict for the plaintiffs for 391. 5s.

**FEMALES IN COAL MINES.**—On Monday last, two cases under Lord Ashley's Act were tried in Airdrie, before the Justice of Peace Court, in which a coal master and a coal contractor were severely convicted and fined for allowing females to work in their pits, in contravention of the statute. The sitting justices were Messrs. Kid, Rankin, and Davison. After trial, Mr. G. Cowie, ironstone contractor, Airdrie, was convicted of having allowed two young females—Isabella Drysdale, aged 20, and Elizabeth Gillespie, aged 15—to work in one of his pits at Cairnhill during the months of February and March. They wore pit clothes and lamps, and went down and up the pit quite openly along with the workmen. The elder girl, as she expressed it, being employed in *hooking* at the wa', and the younger assisting her father, a miner in the same pit. The penalties were modified to 5l. for each female. Mr. J. Watt, coal master, Airdrie, was also convicted of having allowed a married woman, Mrs. Elizabeth Weir or Grant, to work in No. 1 pit, Rawyards, during the month of February. She wrought at a pump, which behaved to be kept working day and night, during part of the period taking shift about with her husband, and part of the period with another labourer. She left the pit in the month of February, and, as came out in evidence, was delivered of a child within a few days afterwards. The penalty in this case, also, was modified to 5l. The accused parties were defended—the former by Mr. J. Aiton, writer, Airdrie; and the latter by Mr. R. Watt, writer, there; and the justices listened with the greatest patience to all the objections and arguments which their legal ingenuity could suggest in behalf of their respective clients. The trials lasted upwards of four hours.—*Glasgow Saturday Post.*

**EFFECTUAL METHOD FOR PREVENTING THE STEALING OF TIN.**—On Monday last, John Semmens was fully committed to take his trial at the County Sessions, on a charge of having stolen a considerable quantity of tin, the property of the adventurers in Botallack Mine. It appears that there were three men concerned in the felony, and that the tin was taken to Mellencar smelting establishment for sale. In order to prevent this article, necessarily left exposed and within the reach of individuals, from being stolen, would not an effectual method be attained by all the smelting houses entering into an agreement to require, on every occasion when tin shall be brought there for sale, a certificate from some individual known to the agents of these establishments? We think so; and have no doubt this precaution would have the desired effect. Since the above has been in type, we have been informed that Semmens has sold black tin to the agents at Angarrack smelting-house, to the tune of 211, which has also been proved to have been stolen from Botallack. Really this description of felony requires an immediate check, and we don't know a more likely means to that end than the immediate adoption of the suggestion we have ventured to put forth.—*Penzance Gazette.*

## MINE ACCIDENTS.

**Balleswidden Mine.**—J. Macpherson fell from the 40 ft. level, and was killed. A miner, named Clarke, was injured by a stone falling upon him.

**Ballwall Mine, St. Just in Penwith.**—A hole exploded, while being charged by a miner, named Reseigh, by which he was dreadfully burned—his comrade was also hurt, but not dangerously.

**Wheal Owles Mine.**—A miner was injured by the fall of a scale of ground.

**Cape Cornwall Mine.**—On Saturday, Capt. Josiah Rowe, engineer at Botallack, was killed at this mine, where he had been superintending the removal of the engine, &c. Just as the work was completed, a portion of the wall containing several huge stones fell, and struck the deceased with such force, and inflicted so serious injuries, that death was almost instantaneous. He was a man of great genius and considerable intelligence, and deservedly respected by his employers and all who knew him.—*Penzance Gazette.*

**Blagencourt.**—J. Jackson was killed by a fall of mine at Mr. G. Turnell's.

**Dochnip.**—T. Lewis was killed by a fall of stone in a level at Cypartha.

**Crofton South Pit, Blyth, Newcastle.**—J. Hymers was killed by a fall of coal.

**Willenhall-rd., Wolverhampton.**—W. Cadman was killed by falling down a pit.

**Longton, Staffordshire.**—As T. Thompson and three companions were descending Messrs. Sparrow's colliery to their work, the engine tenter, by mistake, took the skip upwards, and threw it over the pulley.—Thompson, perceiving the danger of their falling into the pit, which yawned beneath them, called to the banksman: "For your life, turn the waggon off." This was done just as the skip was thrown over the pulley, and Thompson's body was actually half in the pit, when the edge of the waggon jammed it against the edge, and prevented the unfortunate man from being dashed to pieces by falling to the bottom of the shaft. His spine was much injured, and his ribs fractured by the concussion, and, after lingering till the 26th, he died. In the course of the investigation, at the inquest, Mr. G. Mitchinson (Mr. Sparrow's agent), stated that two of his best engine tenters had only one arm each, and they worked with their knees in lieu of the missing member.—*Wolverhampton Chronicle.*

**Mr. Smith's Colliery, New-street, Longton.**—A man and a boy were hurt—the latter but slightly—by an explosion of fire damp.

**Brecon Coal Company.**—W. Cooper was killed by falling into a pit.

**Rockdale.**—J. Mills was killed by a fall of stone at the Change Colliery, Bacup.

**Stockport.**—T. Taylor was killed at Lord Vernon's coal station, Daw-bank.

**THE VIEILLE AND NOUVELLE MONTAGNE ZINC COMPANIES.**—In our Journal of last week we gave a long article, respecting these two thriving companies, translated from our intelligent contemporary, the *Journal des Chemins de Fer*. The following letter has been sent by M. E. Housset, director of the company of the Vieille Montagne, to the Editor, which we cannot do otherwise than extract, in justice to the company:—"Sir,—You have spoken in the highest eulogiums of the mines and foundries of zinc of the Vieille Montagne, in your Journal of the 21st of March; but you insinuated, in closing your article, that the lease of these mines expires on the 1st of January, 1856. That is a great error. The company of the Vieille Montagne possesses these mines, not in virtue of a lease, but by title of concession, and it is proprietor *incommutable*, or freehold, according to the terms of the law of the 21st April, 1810, the same as all those who had former grants. Have the kindness to rectify this error in your next Number." At the conclusion, the Editor makes the following remark:—"We take this opportunity to rectify two errors which have crept into the same article, concerning *La Nouvelle Montagne*, in which it was stated that a steam-engine, of 1000-horse power, would be in full work in the month of Sept.—it ought to have been 100-horse power. And another *erratum*—that, instead of 400,000 lbs., it should be 4,000,000 lbs., the annual produce."

## LONDON ASSURANCE CORPORATION.

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The governors and directors of the London Assurance Corporation have greatly enlarged their system of life assurance, and invite public attention to their new prospectus. The following rates will be found to bear comparison with those of any firmly established and undoubtedly responsible office:—

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Age.	PARTICIPATING.	NON-PARTICIPATING.	
20	£1 16 9	£1 12 7	
25	2 0 9	1 15 11	
30	2 10 8	2 5 11	
35	3 5 1	3 0 0	
40	4 10 7	4 5 7	
45	6 12 5	6 5 11	
50	8 4 11	7 16 9	

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## GREAT BRITAIN MUTUAL LIFE ASSURANCE SOCIETY, 14, WATERLOO-PLACE, LONDON.

THE CHISHOLM, Chairman | WM. MORLEY, Esq., Deputy-Chairman

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The attention of ASSUREES is particularly directed to the Half Credit Rates of Premium, by which means assurances may be effected, and loans for short periods secured with the least possible present outlay, and at a less premium than for short terms only, and with the option of paying up the arrears and interest—thus becoming entitled to participate in the whole of the profit of the institution.

Extract from the Half Credit Rates of Premium.

Age 20.	Age 30.	Age 40.	Age 50.	Age 60.
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Thus £1000 may be assured at the age of 30 by the annual payment of £10 10s. 10d. or the first five years.

The whole of the profits divided ANNUALLY among the members, after payment of five annual premiums.

An ample guaranteed capital, in addition to the fund continually accumulating from premiums, fully sufficient to afford complete security to the policy-holders.

Members assured to the extent of £1000 entitled (after payment of five annual premiums) to attend and vote at all general meetings, which will have the superintendence and control of the funds and affairs of the society.

Full particulars are detailed in the prospectus, which, with every requisite information, may be obtained by application to A. R. IRVINE, Managing Director.

## PATENT IMPROVEMENTS IN CHRONOMETERS.

**WATCHES, AND CLOCKS.**—E. J. DENT, 82, Strand, and 33, Cockspur-street, watch and clock maker, by APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in gold holes, 6 g. each; in gold cases, from £8 to £10 extra. Gold horizontal watches, with gold dials, from 8 g. to 12 g. each.

**DENT'S PATENT DIPLÉSCOPE,** or meridian instrument, is now ready for delivery. Pamphlets containing a description and directions for its use is, each, and to customers gratis.

## TO ENGINEERS, RAILWAY CONTRACTORS, MINING

AGENTS, IRONMASTERS, AND OTHERS REQUIRING FINE GREASE FOR MACHINERY AND AXLES of every description.—JOSEPH PEEVART'S IMPROVED ANTI-FRICTION GREASE is—after trials on machinery and axles of every kind where constant friction is kept up—admitted to be the most useful, economical, and best preparation of the kind ever offered to the public.

References to scientific and practical men can be given, and testimonials shown of its great excellence.—Samples forwarded on application at the manufactory, Green-street, Wellington-street, Blackfriars-road, London.

## SEYSEL ASPHALTE COMPANY—CLARIDGE'S

PATENT ESTABLISHED MARCH, 1838.

FOR WORKING THE MINERAL ASPHALTE ROCK OF PYRMONT SEYSEL, A Bituminous Rock, situated on the Eastern side of the Jura.

PRINCIPAL DEPOTS: ROUEN, MARSEILLES, AND STANGATE, Surrey Side of Westminster-bridge, London.

The ASPHALTE OF SEYSEL has been EXTENSIVELY USED, since March, 1838, for the following useful purposes:—

FOOT PAVEMENTS (public and other)	MALT-HOUSE FLOORS
KITCHEN FLOORS	PIGHERIES, &c.
BASEMENTS—where it is essential to keep damp from rising	COVERING OF RAILROAD AND OTHER ARCHES
GARDEN WALKS AND TERRACES	The only effectual mode to prevent the percolation of water, which also renders it very appropriate for the
CARRIAGE DRIVES	LINING OF TANKS, FISH PONDS, DRAINS, &c.
COACH-HOUSES AND STABLING	
DOCK KIBBLES	
BARN FLOORS	
TUN ROOM FLOORS	

Note.—The Seyssel Asphalt Company are prepared to enter into special contracts for the execution of railway work, and other public works of magnitude.

I. FARRELL, Secretary, Seyssel Asphalt Company, Stangate, London.

## HALEY'S PATENT LIFTING JACK.

MANUFACTURED SOLELY BY W. & J. GALLOWAY, ENGINEERS.

**KNOT MILL IRON-WORKS, MANCHESTER.**

The attention of parties who employ LIFTING JACKS, is respectfully requested to the superiority of the above over those hitherto in use. It will lift either at the top or below—having a claw, the same as the rack jack. Its parts are made in the most accurate manner—each working piece being engine-cut. Notwithstanding its superiority, in point of workmanship, and combining utility, safety, durability, and neatness, the cost is not more than that of the rack jack, of rude manufacture. Amongst the advantages which it possesses, the following may be enumerated:—

1. It is about half the weight of the ordinary rack jack of equal power.

2. The handle (working similar to the rack jack) may be let go with the lift on; and although it has neither ratchet wheels or any other mode of securing it, it will not run back, but remains stationary, and quite safe.

3. Its parts are few, and simple (made entirely of wrought-iron, and case-hardened).

PRICES.

No. 2 size—to lift 2 tons	£8 0 0
" 3 " " " " "	7 0 0
" 4 " " " " "	9 10 0
" 5 " " " " "	12 0 0
" 6 " " " " "	15 0 0

UNDER THE PATRONAGE OF ROYALTY AND THE AUTHORITY OF THE FACULTY.

## KEATING'S COUGH LOZENGES.—A remedy for all dis-

orders of the pulmonary organs—in difficulty of breathing—in redundancy of phlegm—in incipient consumption (of which cough is the most positive indication) they are of unerring efficacy. In asthma, and in winter cough, they have been seldom known to fail.—KEATING'S COUGH LOZENGES are free from every deleterious ingredient; they may, therefore, be taken at all times, by the most delicate female and by the youngest child; while the public speaker and the professional singer will find them invaluable in allaying the hoarseness and irritation incidental in vocal execution, and consequently a powerful auxiliary in the production of melodious enunciation. Prepared and sold in boxes, 1s. 1½d., and 2s. 9d., 4s. 6d., and 10s. 6d. each, by Thomas Keating, chemist, &c. No. 78, St. Paul's Churchyard, London. Sold by Sanger, 150, and Dietrichsen and Hannay, 68, Oxford-street; Blake, Sandford, and Blake, 47, Piccadilly.—Sold wholesale by Barclay and Sons, 55, Farringdon-street; Edwards, 67, and Newberry, 45, St. Paul's Churchyard; Sutton and Co., Bow Church-yard; and retail by all druggists and patent medicine vendors in the kingdom.

RECENT TESTIMONIAL. Dover, January 25, 1845.

Sir,—I have great pleasure in informing you, that the 2s. 9d. box of KEATING'S COUGH LOZENGES, had at your house about three weeks since, has relieved Mrs. Hillier of a bad cough, to which she has been subject many years, especially in the winter season. A considerable portion of the lozenges are on hand, nor has she, for the last fortnight, had any occasion to use them.

Yours respectfully, Mr. S. Marten, Dover.

F. I. HILLIER, Jun.

London:—Printed and Published, weekly, by HENRY ENGLISH, at the Office, No. 25, FLEET-STREET.

In the city of London, where all Communications and Advertisements are requested to be forwarded—addressed to "the Editor"—post-paid. [April 11, 1846.]